

# Modern

# LITHOGRAPHY

.....

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TECHNICAL DEPARTMENT

SM

Census Shows Litho Gains

NALC Council Meets

Installing Offset Presses

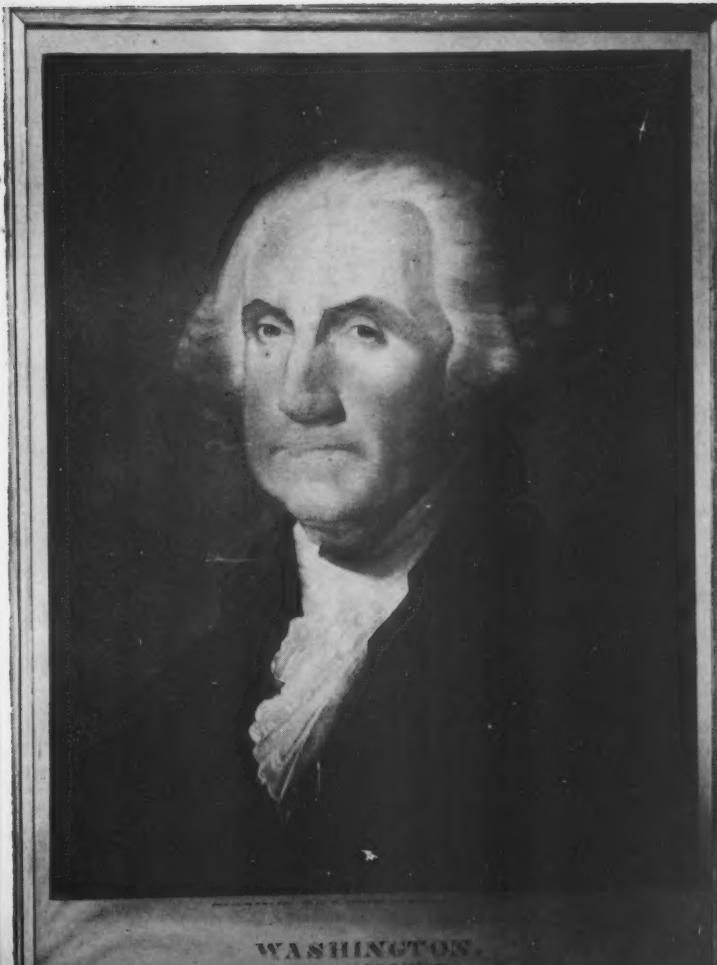
Color and Color Control

Plastic Maps Use Litho

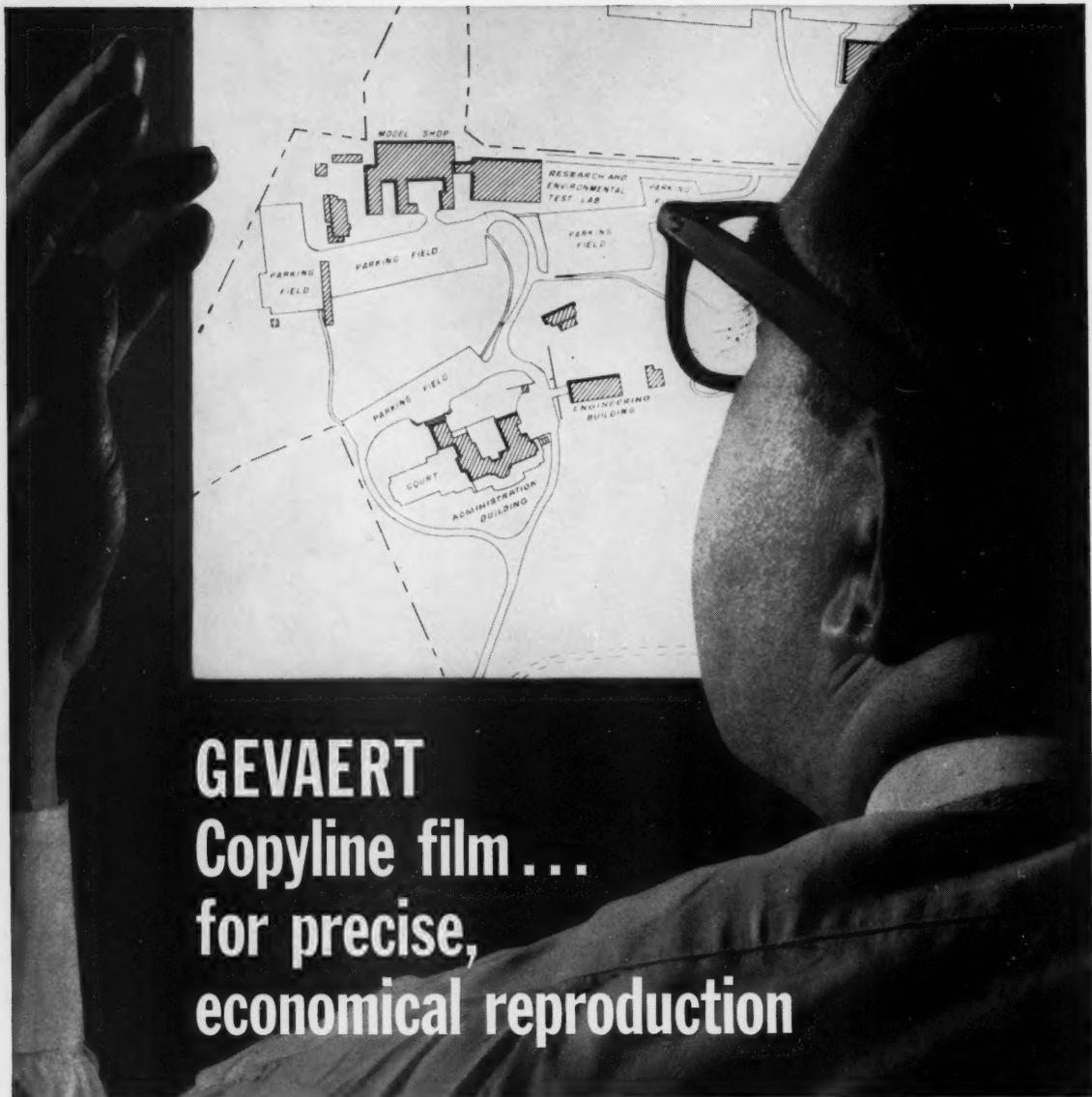
Court Rules Against ALA

*In this issue*

FEBRUARY, 1960



WASHINGTON



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Gevaert COPYLINE is the film specifically designed to give you precise reproduction at low cost. Because of its extremely contrasty orthochromatic emulsion, it is particularly suited to the detailed reproduction of engineering drawings, tracings and routine offset work by camera or contact. COPYLINE's light matte surface makes it simple to use any retouching procedure. There's no problem with minor miscalcula-

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## ROYAL ZENITH ANNOUNCES THE AUTOSCAN

The AUTOSCAN, developed by the noted British firm of Hunter-Penrose, Ltd., leaders in graphic arts for 60 years, is a fully operational continuous-tone color scanner available for purchase today. It produces color-separated negatives for lithographic, letterpress, or gravure reproduction of the highest quality.

The AUTOSCAN is not an experimental device nor a prototype. It is an established, working instrument, now in extensive use for actual production in half a dozen European countries. We believe it to be the long-sought answer to the search for increased speed, simplicity, control and quality in economical color reproduction.

The AUTOSCAN is basically a fine reproduction camera. In place of lamp illumination, it employs an electronically-controlled pinpoint scanning light. Color copy, up to 24"x 24", is scanned by this dot, rapidly and closely. The light dot reads the copy in horizontal sweeps, 120 times to the inch. These overlap, so that the exposed negative has no lines whatever.

The AUTOSCAN works directly from reflective color originals, automatically correcting for proper ink and paper balance in each color. No masking or balanced negatives are needed. The brightness of the scanning light is varied by photocells and electronic circuits, compensating and correcting automatically for the desired contrast and definition, for screens and filters, and for quality results in the end reproduction process: lithography, letterpress or gravure. Settings are quickly and easily made or changed to meet varying ink, paper and other requirements.

### AUTOSCAN PHOTOGRAPHIC COLOR SCANNER

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Because the AUTOSCAN is basically a reproduction camera, not an electronic device, its principles and operation are familiar to any competent cameraman. The simple controls are quickly mastered. Once these controls are set, operation is automatic, and the possibility of human error is reduced to a minimum.

*Please write for literature on the AUTOSCAN, giving full details and specifications.*

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## Cover

A rare lithograph of George Washington, drawn on stone in 1835 by American artist George Endicott, is featured on the cover this month, in honor of our first president's birthday. The lithograph from which our engraving was made is about 18 x 24" in black ink and what seems to be a faint tint of red. For further information, readers may contact Miss Joan K. MacNeary, 67 Small Ave., Caldwell, N. J., author of an article in this issue on the history of litho in the U.S. Endicott's portrait has been called "the Washington of strength."

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## MODERN LITHOGRAPHY

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FEBRUARY, 1960

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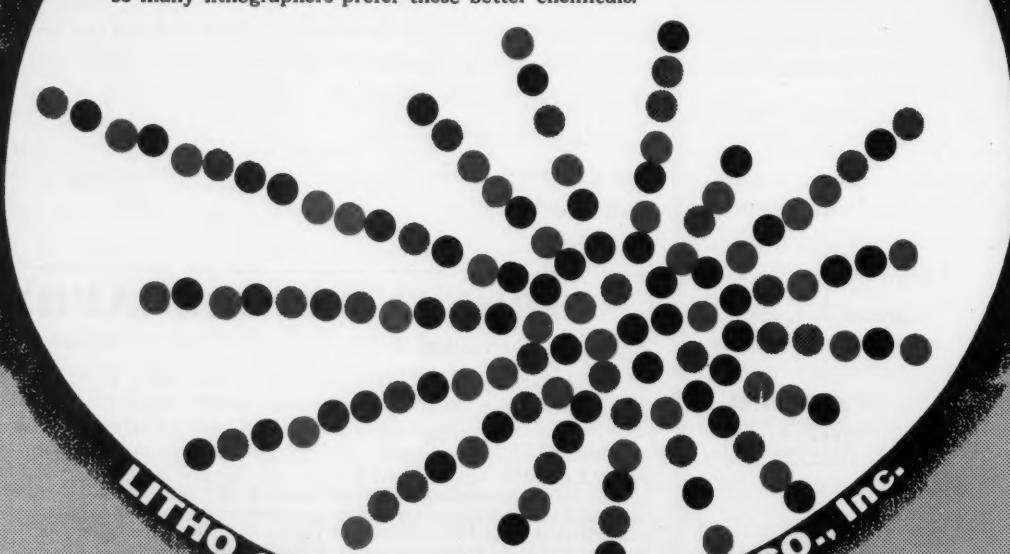
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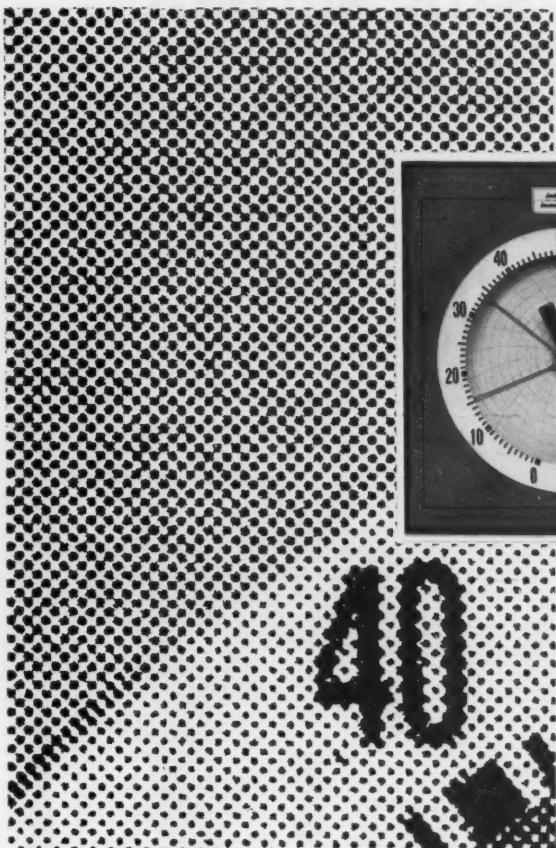
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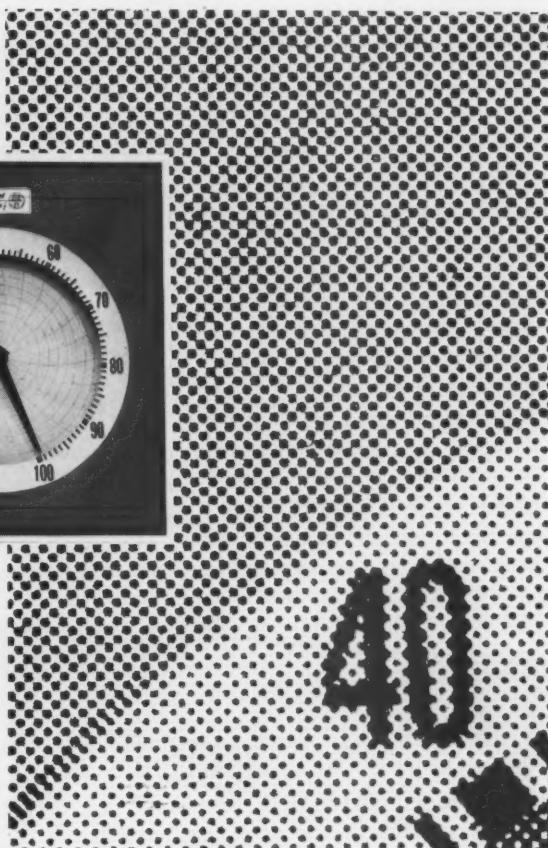
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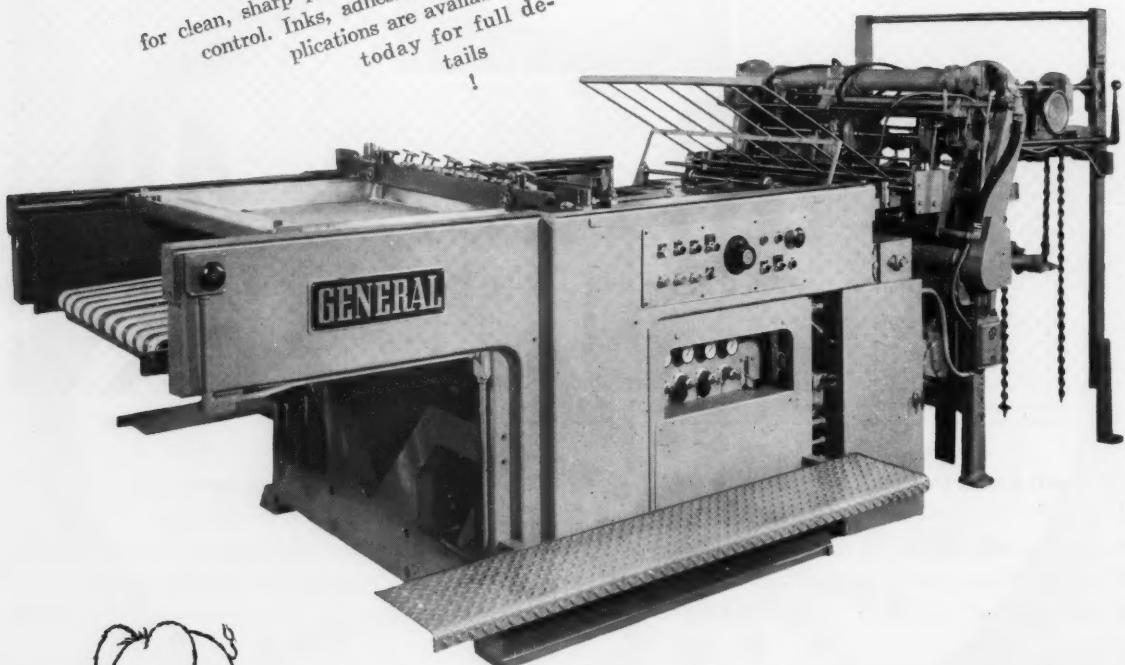
# GOOD YEAR

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Illustration courtesy of Industrial Instruments, Inc., Cedar Grove, New Jersey, and American Press Inc., New Bedford, Mass.

# NOW... a high speed automatic feed silk screen decorator

General has designed this cylinder press to produce quality printing on tinplate, sheet metal, light cardboard, fibreboard, sheet aluminum, sheet plastics and similar materials, in sheets to 36" x 36", at high production speeds with UNINTERRUPTED AUTOMATIC FEED. The new General No. C3636 Decorator offers precision metal decorating, production of metal containers, metal signs, displays, etc., using all inks and functional coatings formulated for silk screen application. High capacity feeder handles metal from 38 to 24 gauge and reloads without stopping. And like all General Presses, the C3636 is engineered for clean, sharp printing, hairline register and complete ink control. Inks, adhesives and coatings, for all applications are available . . . write today for full details!



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# ATF

## news

NOW! 3 NEW CHIEFS

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### Pre-register system on new Chiefs assures first class work at top speeds

Three new, fast two-color Chiefs with advantages that spell higher profits for every hour of running time are now available from ATF.

The *Chief 238* prints sheets up to  $25\frac{1}{2} \times 38\frac{1}{2}$ " at speeds to 7500 iph.

The *Chief 250* prints sheets up to  $36\frac{1}{4} \times 50$ " at speeds up to 6500 iph.

The *Chief 255* prints sheets up to  $38 \times 55$ " at speeds up to 6000 iph.

All three presses include features that save time, trouble and profits for the printer. For instance:

The pre-register system permits twice the time for registering the sheets as on presses without such a system. In effect, the press is equipped with two sets of headstops. The sheet is slowed down and brought into register at the front by the first set of headstops, underneath the previous sheet.

While the previous sheet is being transferred to the impression cylinder by the swing-arm mechanism, the next sheet moves down slowly to the second set of headstops, where it is again registered—this time front and side. The second or main headstops are adjustable while the press is running—to vary the gripper margin or correct the "lay" of the sheet. When these headstops are adjusted, the check-fingers automatically adjust to the same relative position.

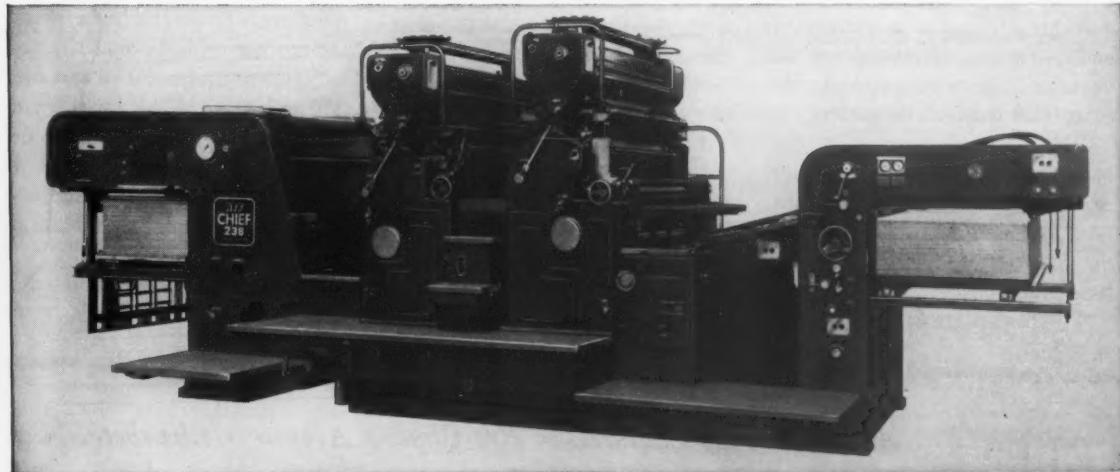
The "V" cylinder arrangement of the presses is such that both colors are printed while the sheet is held in position on the one impression cylinder. This eliminates register errors common to presses requiring transfer of the sheet between printing units. The printing units on the Chiefs are on

the same level, which makes them fully accessible to the pressmen. Ample room for working is provided between the color units, and convenient storage trays for inks, chemicals, etc., are provided for each unit.

The high speed stream feeder is easy to set, keeps sheets in full view while feeding. Continuous feeding—which permits pressmen to install a fresh pile of stock while the press prints the last of the preceding pile—is available without extra cost on the Chiefs 250 and 255 (optional on the Chief 238).

The swing-arm is cam-operated in both directions to insure accurate register at high speeds. The presses employ two feed cylinders, which permit the swing-arm to operate above the feed-plate and give the sheet a fairly flat line of travel

*Continued on page 2*



*Turn page for interesting story on ATF Chief 22*

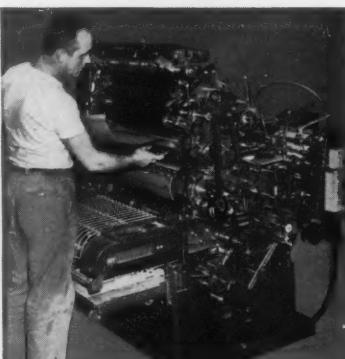
## 100 year old plant installs ATF Chief 22 after careful study of 17 x 22 offset presses

Sentinel Printing Company, a division of The Hempstead Sentinel, Inc., celebrated its first complete century last year, under the operation of four generations of the Van de Water family. This progressive Long Island plant has both letter-press and offset equipment, plus its own composing room and bindery. The company turns out a wide assortment of jobs for a variety of customers. A typical day's line up might include work on well over a hundred different jobs. Some recent examples: summons "tickets" for the local police department, catalog pages for a giant aircraft equipment manufacturer, business forms for a department store, window banners for a toy company, and a monthly house organ for a bank.

Always expanding and updating their facilities, Sentinel recently consulted a trade association about the best way to build up their offset operation. The technical consultants advised Sentinel to add a 17 x 22 offset press, pointing out that this size would tie in best with Sentinel's large volume of runs on both single and multi-color jobs.

The present owners, Kenneth B. Van de Water and his son, Ken Jr., thoroughly appraised all available models in the 17 x 22 size range. They lined up complete specifications and operating details from all the manufacturers, and visited plants operating offset presses in this size. On the basis of this careful analysis, the people at Sentinel decided on the ATF Chief 22. After about eight months of use, they are convinced that their choice has been justified.

Sentinel's pressman on the Chief 22, Howard Gregg, likes the fast



Howard Gregg, Sentinel pressman, finds the Chief 22's fast plate lock-up easy to work with.

set-up and getaway, as well as the general easy and trouble-free operation. And he finds the wash-up device convenient and thorough. The quality of the work the press turns out is highly regarded, too, especially where color and register are concerned. The Chief 22's inking system provides the heavy coverage needed when running color forms. And of course the compact, space-saving construction fits in well with Sentinel's neat and orderly plant layout.

Sentinel uses the Chief 22 for house organs, technical manuals, business forms, two and three color box wraps—all on an assortment of stocks, including gummed, bond, coated, tracing paper and 91# index. The pressman finds the Wale floating nozzle a great help when running hard-to-handle stocks.

This addition of an ATF Chief 22 is just one step in the Sentinel expansion program that has been going on since the company was founded in 1858, and has been accelerated in the past ten years. A few years ago Sentinel moved to its present location, a single-level building especially designed for them. And one of the primary considerations in laying out the new quarters was providing extra floor space for future expansion.

*Continued from page 1*

from the feed board to the impression cylinders—a distinct advantage when printing heavy card stock.

Printing pressures on the two units are adjusted by a handwheel and micrometer adjustment on the operator's side of each unit. A calibrated dial indicates the setting.

Blanket-to-plate pressure can be varied by a simple micrometer adjustment—which eliminates the need for changing packing, should the blanket swell a little during long press runs.

The feed-plate is raised or low-

ered to compensate for differences in stock thickness. This is accomplished with a handwheel and micrometer adjustment, and eliminates the need for adjusting grippers when changing stocks.

The feed board is motorized, for easy raising and lowering.

Lubrication is automatic and semi-automatic, and very few points require individual attention. A red warning light indicates when the oil reservoir needs refilling—although press can be run for some time after it appears, without danger.

All cylinders are mounted in special alloy phosphor-bronze lined bearings, which are lubricated automatically. As a result, the press is quiet in operation and longer-wearing at these critical points.

Standard equipment on the Chief 250 and 255 includes a highly efficient mechanical gripper in the delivery, which insures accurate delivery at high speeds (this feature is also available on the Chief 238 as optional equipment).

Ask your local ATF representative or Branch for the details.

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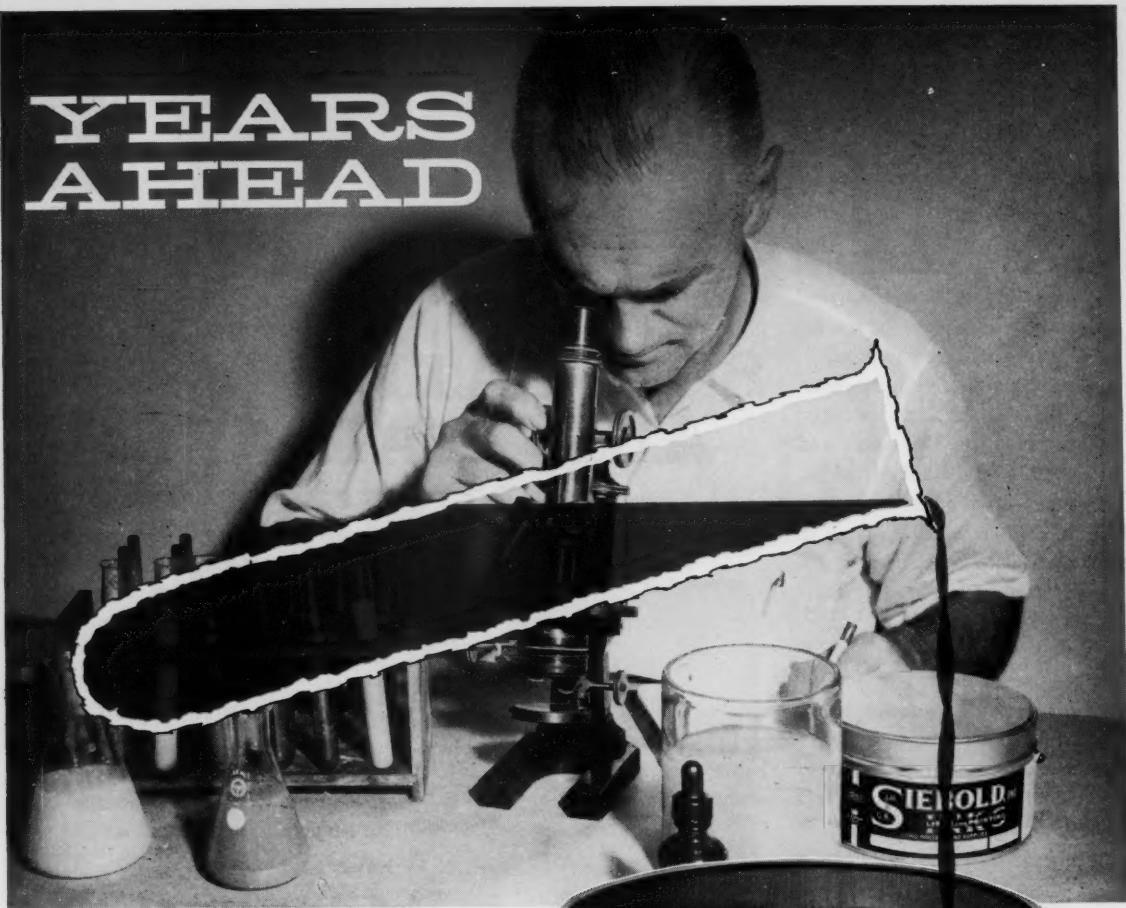


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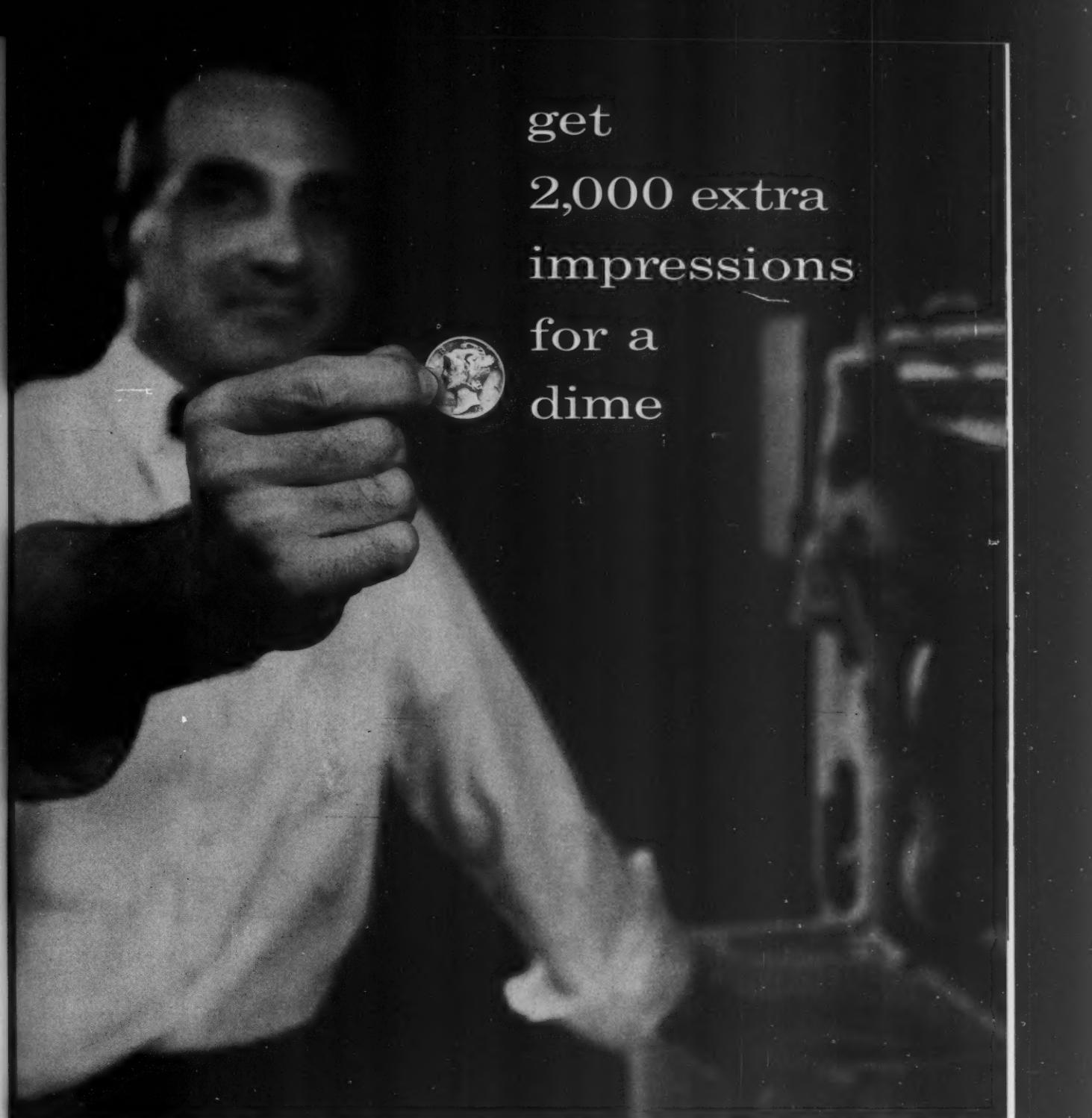
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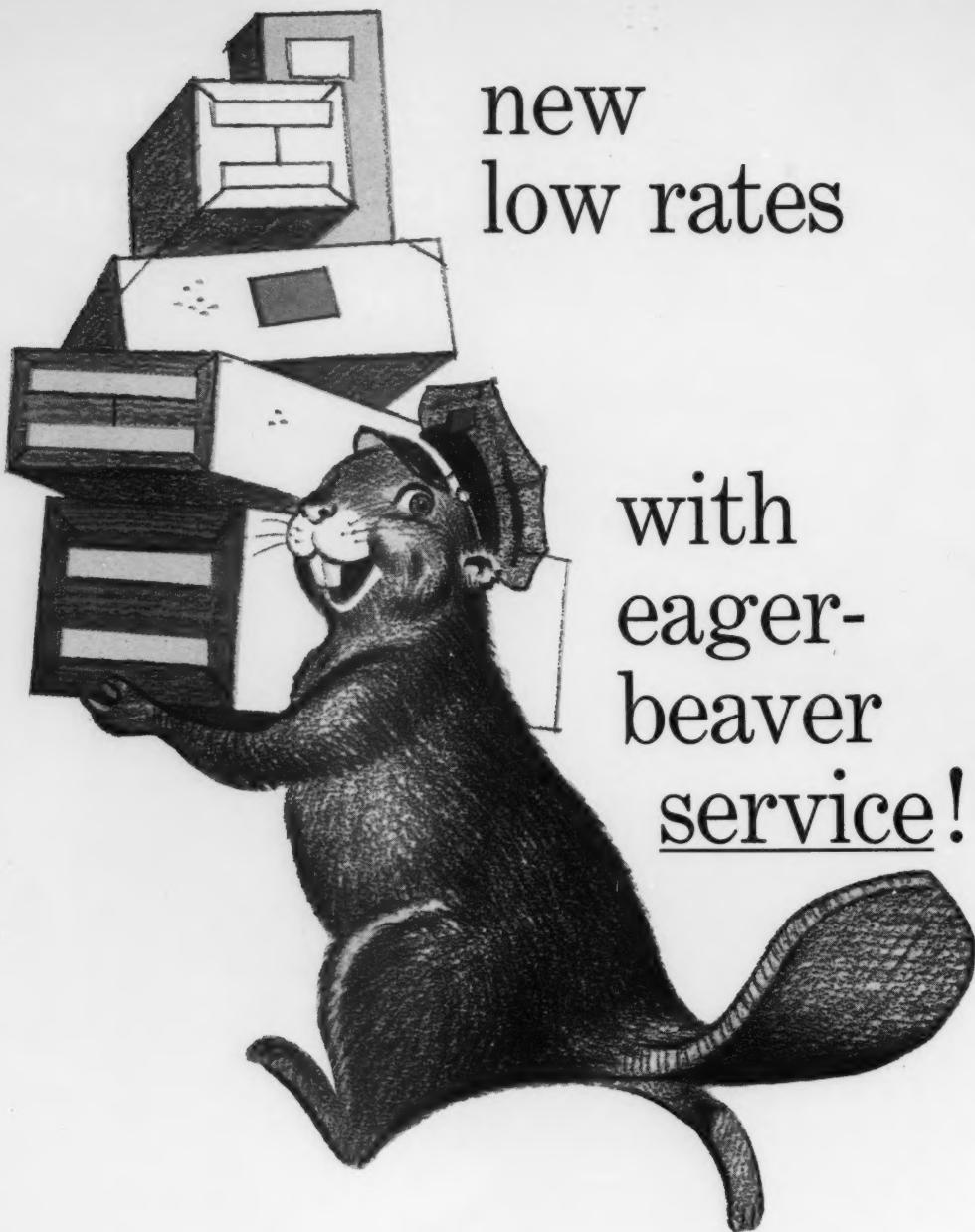
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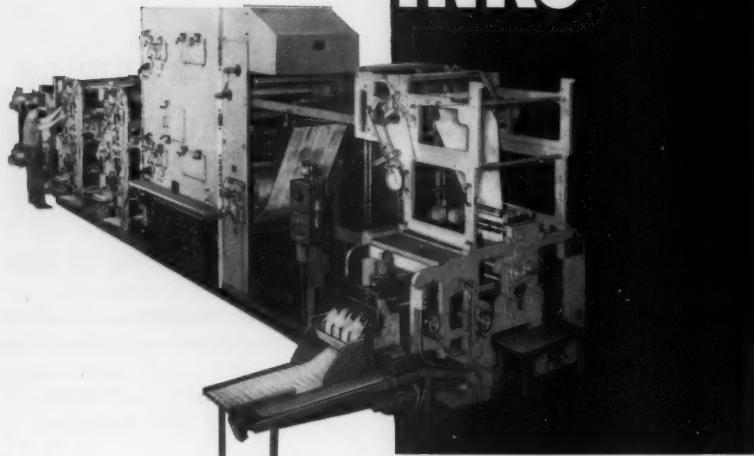


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When your selling message deserves an important look and feel, dress it up with Hammermill Cover. Give your catalog, booklet, mailer or menu the attention of good printing, the advantage of extra protection, the impressiveness of high bulk. Whether you use offset (this side) or letterpress (the other side) you get all these advantages when you put your work on Hammermill Cover. Let your fingers and eyes tell you so as you turn this page.





# HAMMERMILL COVER

## OFFSET OR LETTERPRESS...BOTH PRINT MEMORABLY ON HAMMERMILL COVER

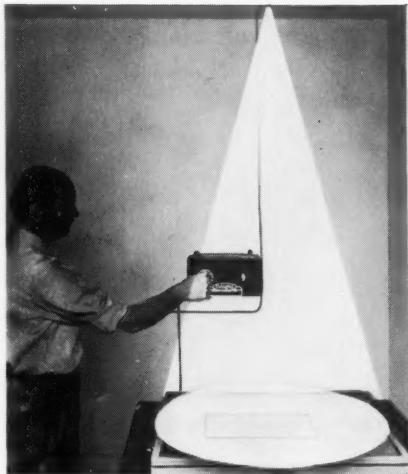
When a prospect gets his hands on a Hammermill-Covered job, he remembers it—and its message. For offset work, Hammermill's exclusive Neutracer® pulp provides the firm, level surface an important job needs. For letterpress, these resilient fibers take a printing impression that makes the best selling impression.

This insert printed by offset on the 4-color side, and by letterpress on this, the 2-color side. Paper is Hammermill Cover, substance 65, Radiant White, Antique finish. Offset side printed 8-up on a 25 x 38, 2-color press. Sheet size 25½ x 38. Letterpress side printed on a 28 x 41, single-color press.

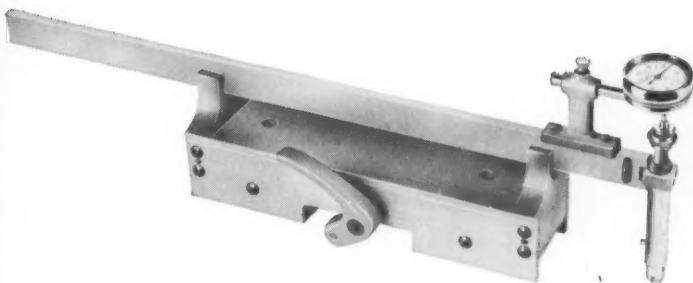
Your Hammermill Agent offers you fast, prompt service with Radiant White and the nine beautiful, rich, fade-resistant colors.

Hammermill Paper Company, Erie, Pennsylvania.

**Colight Job Proven  
Precision Control Equipment  
gives you  
BETTER QUALITY ...from  
PRINTS to PRINTING**

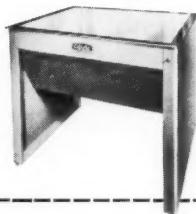


**BETTER PRINTS** . . . New Contact Printing Lamp takes *all* guesswork out of making contact prints. Easy to install, and operate. Miniature 20 watt lamp gives 8 times as much light as a photoflood . . . uses half as much current . . . lasts thirty times as long. Does far better work! Price: \$89.50 complete.



**BETTER PRINTING** . . . The new Colight Magnetic Packing Gauge scientifically measures the height (to .001 inch) of the printing surfaces of the plate and blanket cylinders . . . giving you *improved offset quality and longer plate life*. This profit-making gauge has been used extensively in some of the nation's best printing plants. It's simple to operate, and it's portable . . . you need only one per plant. It is a simple, sturdy, scientific instrument that will give years of maintenance-free service. Only a few plates saved and it has paid for itself. Order yours today . . . . . Price \$215.00

**CHECK THESE PROFIT MAKING PRODUCTS FOR THE LITHOGRAPHER**



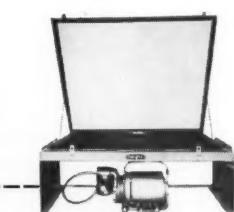
**MODEL KD**—New! assemble it yourself and save money. Solid construction, adjustable straight edges, ample leg room, adjustable feet. Prices:

20" x 24" . . . . . \$149.50

30" x 45" . . . . . \$187.50



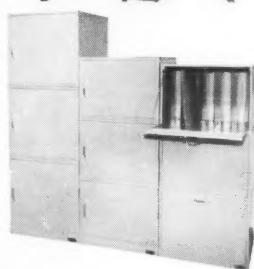
**MODEL ASL**—This economical, precision built, Colight Art Stripping Table, is designed for the Artist, Photographer, and the Lithographer. Adjustable straight edges, double glass for coolness and better light diffusion. Prices: ASL No. 1, 16" x 18" working area . . . . . \$59.50 ASL No. 2, 19" x 25" working area . . . . . \$79.50



**ТИLING VACUUM FRAME**—Save time and maintain high quality with this precision built vacuum frame. Heavy duty Gast pump and molded blanket assure absolute contact. Three sizes to choose from: 11" x 17" to 21 1/2" x 25". Price (16" x 21 1/2") \$169.50



**MODEL TST**—The Colight Tilting Stripping Table is a unit you never have to leave. While seated, necessary materials are at your fingertips. Adjustable tilt, straight edges, and feet. Price: Model TST, working area 19" x 25" . . . . . \$149.50



**FILING CABINETS**—Prevent loss and damage of plates, negatives, and artwork with Colight's Filing System. Attractive grey-crinkled filing units accommodate any size operation . . . can be purchased separately as needed. Each unit stores 300-400 jobs safely. No hooks, clamps, or clips! Available in sizes to fit all standard negatives.

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Free information. Please send me complete information on Colight products for the Lithographer.

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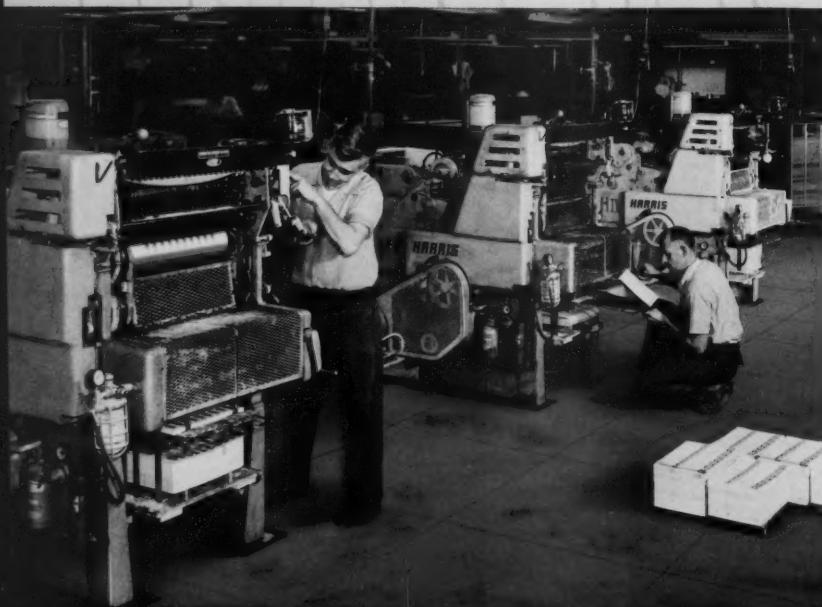
State . . . . .



THREE NEW INTERTYPE linecasting machines at the News Publishing Company, Wheeling, W. Va., are producing advertising for the morning *Intelligencer* and the evening and Sunday *News Register*. The company has a total of sixteen

Intertypes for setting news and advertisements for these newspapers. The News Publishing Company is publisher of The Ogden Newspapers of West Virginia, comprising 12 outstanding dailies in nine plants throughout the state.

## What's going on at HARRIS



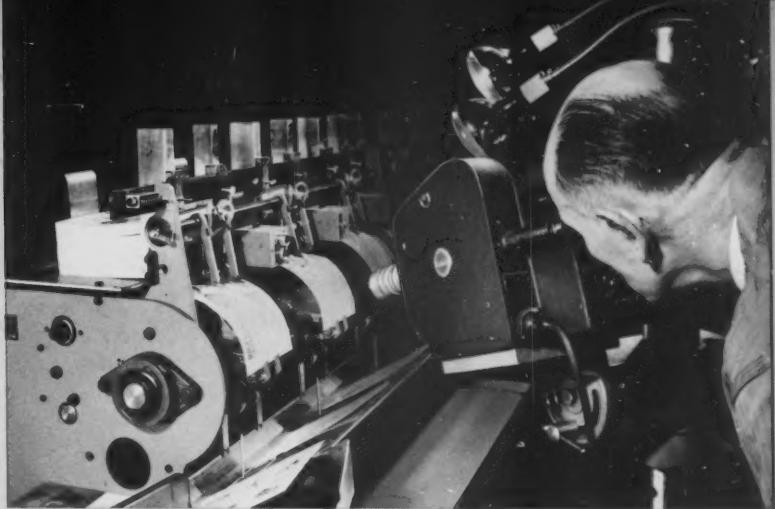
UNIVERSAL MATCH CORPORATION uses Harris 120 presses to print as many as eight different colors on short runs. This battery of new Harris single-color presses is in their Hudson, New York, plant and represents only a small portion of their total Harris-Seybold equipment.

SLOW-  
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**SLOW-MOTION PHOTOGRAPHY** helps research the high-speed workings of this new Macey gatherer which gathers up to 5,000 sets of paper an hour.



**NEWS ON FM STATIONS** is so rare, it's news in itself. Which helps explain the interest in this photo of the newsroom at Station KHUL, Houston, Texas. This 24-hour 5,000-watt station is one of the first FM stations to provide complete news service. Shown here is their new Gates FM-5B 5 KW FM transmitter, Gates-way audio-control console and 3-speed turntable.

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# SINTERTYPE

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INTERTYPE  
CORPORATION**

## **HARRIS-INTERTYPE CORPORATION**

General Offices: 55 Public Square, Cleveland 13, Ohio

Harris Presses • Intertype Typesetting Machines • Cottrell Presses • Seybold Cutters

Macey Collators • Harris Chemicals and Sensitized Plates • Gates Broadcasting Equipment

**BEHIND THE WHISKERS** is Richard Hoff, Harris-Intertype Director of Personnel Development and Training, entertaining *a few of our girls* at their Christmas gift exchange in a corner of their reception room.



**LITHOPLATE INC.**, Covina, California, doubled its manufacturing area with this new 35,000-square-foot plant. This fine new building also provides excellent additional facilities for research and development on presensitized plates and litho chemicals.



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ion of

*You'll save money at the copy board with...*



**NATIONAL CARBON ARCS!**

TRADE-MARK

Because when you team these "National" High Intensity carbon arcs with modern arc lamps you'll realize *greater speed, greater efficiency* and *increased production* for all your copy board shots.

This excellent light source reduces exposure time. It also provides a point source of light which assures sharper reproduc-

tions requiring less retouching and hand-work. These benefits add up to improved scheduling and increased capacity from the copy board to the platemaking department.

For fidelity of dots from negative to plate...use nothing but the best—arc lamps teamed with "National" High Intensity carbon arcs.

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Printed Offset on Atlantic Offset, Regular Finish • Basis 80



Once, more years ago than you care to think, you bought a balloon.

Red as a strawberry. And *big*. How proud you were!

Today, that balloon is only a memory.

But not your sense of *pride*.

You feel it when you hold a proof-sheet

in your hand and think: "I'd like to see anyone top that!"

We feel it, too. Because we know that our fine Atlantic papers help make fine printing possible.

Pride in printing. Pride in papermaking. Your story—and ours.



ATLANTIC FINE PAPERS

EASTERN FINE PAPER AND PULP DIVISION • STANDARD PACKAGING CORPORATION • BANGOR, ME.



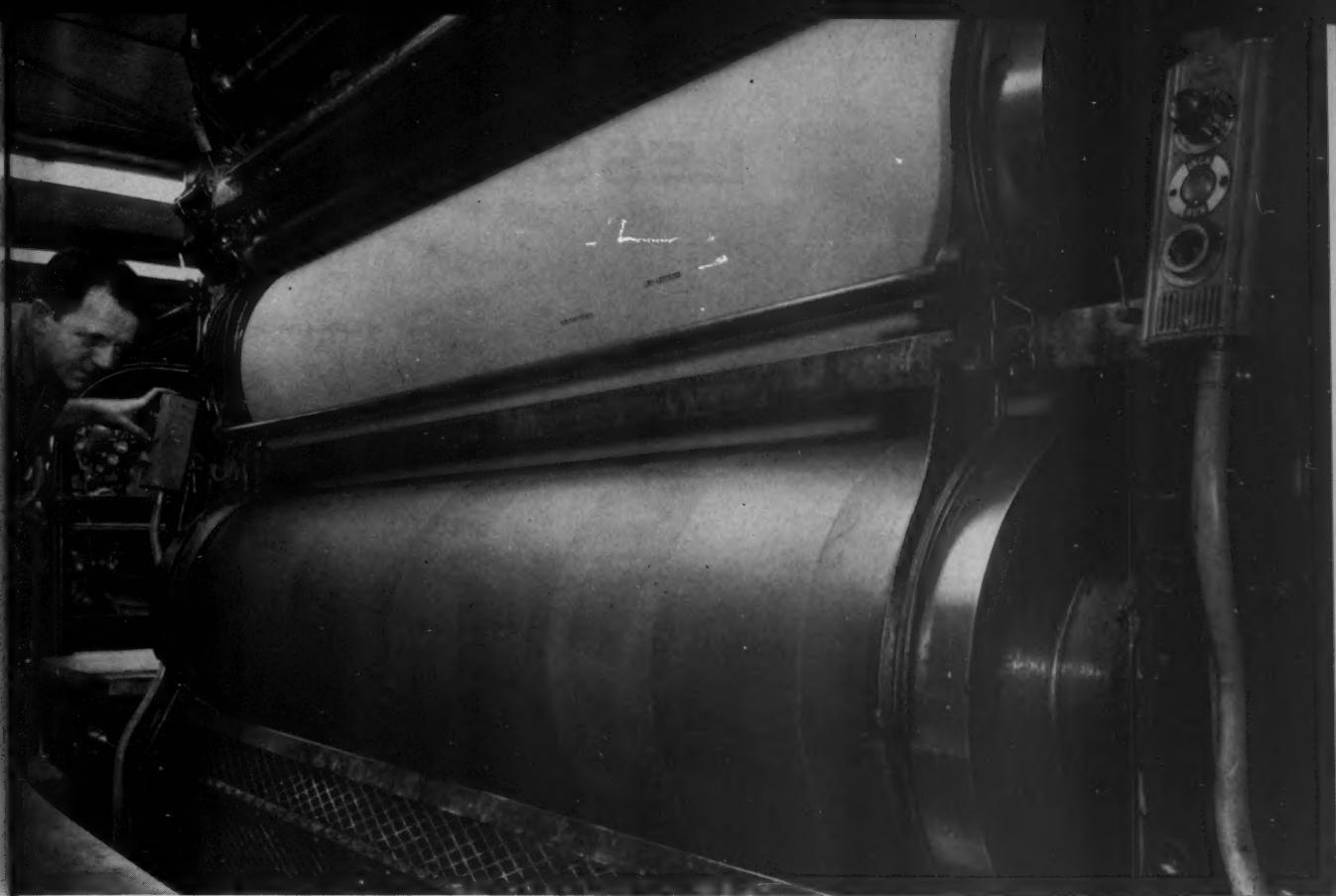


Offset printed in four colors on ATLANTIC OFFSET, Regular Finish, basis 80 pounds. Run on 52 x 78 four-color press at 4,000 IPH.

## Substance weight watermarked in every sheet of ATLANTIC BOND

13, 16, 20, or 24? Just a glance at the genuine watermark tells you the weight of ATLANTIC BOND you're using. Helps in re-ordering, too. ATLANTIC BOND is moisture-controlled, precision trimmed for trouble-free production. Envelopes to match. You get clear, sharp impressions with ATLANTIC BOND — just one of the Eastern Fine Business Papers.

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EASTERN FINE PAPER AND PULP DIVISION  
STANDARD PACKAGING CORPORATION • BANGOR, ME



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# Dayco Gold Seal® Blankets and Tru-Face® Offset Rollers

Here is a double-barreled combination that can give you the highest quality reproduction possible, regardless of length of run or press speed. Gold Seal Blankets and Tru-Face Rollers are built to work perfectly together with any stock . . . on any press.

Gold Seal Blankets are built to the closest possible tolerance limits for absolute uniformity. They have no high or low spots and will not swell, emboss or peel. Gold Seal's exclusive construction provides faster recovery after "blanket mash" for truest fidelity of reproduction. What's more, blanket stretch has been reduced to even less than 2%.

Dayco Tru-Face Rollers are unaffected by seasonal weather changes or internal heat build-up, maintaining their exact dimensions at all times. In addition, they are virtually non-porous and have an ultra-smooth finish, reducing wash-up time to an absolute minimum . . . with no chance of bleed back.

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Find out how Gold Seal Blankets and Tru-Face Rollers can "guarantee" full-run quality for your plant. . . . Write today to: **DAYCO DEPARTMENT**



**Dayton Industrial Products Co.**

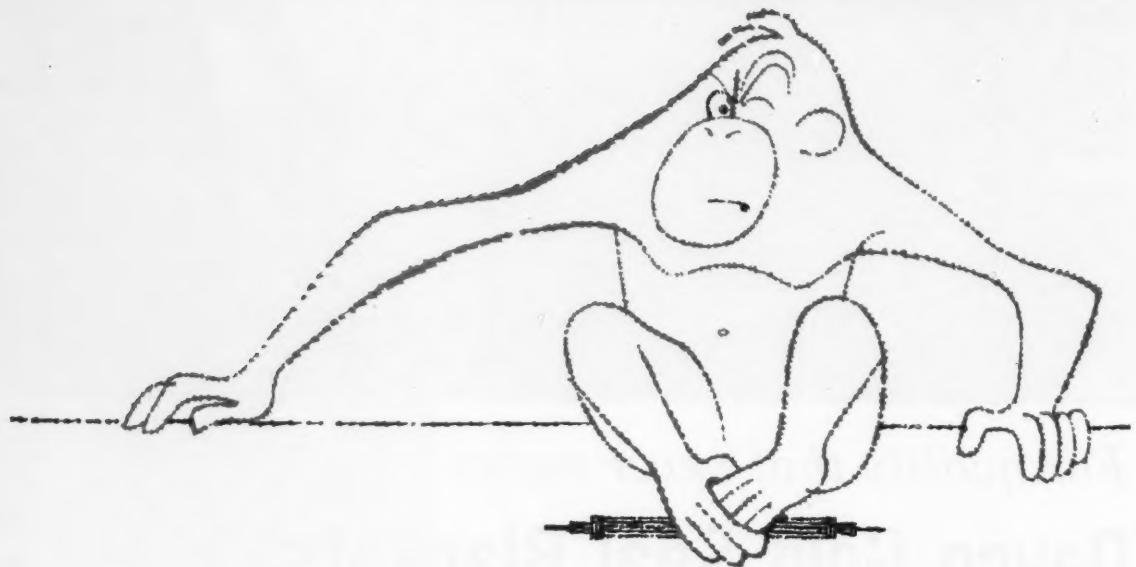
Melrose Park, Ill.

A Division of The Dayton Rubber Co.

**West Coast Distributors:**  
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In Canada: The Dayton  
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**"THERE'S A GOLD SEAL BLANKET OR ROLLER FOR EVERY LITHOGRAPHIC NEED!"**

**LESS  
MONKEYING  
WITH  
MAKE-READY!**



**MERCURY  
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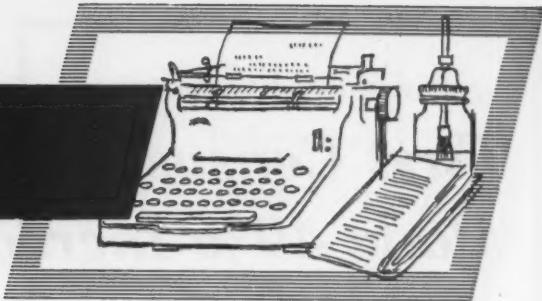


There are five big reasons why Mercury rollers and blankets save make-ready time . . . . Resistance to ink-drying on the press . . . . Freedom from swelling due to ink absorption . . . . Perfect affinity for ink . . . . Absolute uniformity in blanket thickness . . . . Controlled blanket stretch.

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## EDITORIALS



### First Census Figures Released

STATISTICAL support for the litho industry's claims of growth, both in number of plants, and volume of business, was forthcoming last month in the first preliminary report from the Department of Commerce.

The report, analyzed in detail by our staff on page 30 in this issue, shows that lithography has registered a startling 49.1 percent increase in value added by manufacture (1958 compared with 1954) while commercial printing (letterpress and gravure) is up only 8.3 percent. The printing and publishing industry as a whole is up a healthy 21.6 percent in the four-year period.

In number of plants with 20 or more employees, the advance report shows lithography increased 41.3 percent, while commercial printing gained only 2.4 percent, and statistics for total employees show offset 25.6 better than in 1954, while its rivals dropped .5 percent.

What do these figures mean? First of all, it is obvious that our industry is continuing to outpace letterpress and gravure, and by a wide margin. Even allowing for the fact that litho is only about half as big as letterpress and gravure, the gains are striking.

Continued production improvements in our industry—the product of research both by LTF and by private supply firms—is to be credited at least in part for these gains. A greater recognition on the part of printing buyers of the applicability of offset to an ever-increasing number of jobs also has contributed.

And what about improvements in four-color process by lithography, and the greatly expanded field of web-offset? Certainly these, too, must have made an impact in the figures.

Will lithography's gains continue in a census report four or five years from now, in the face of the recent highly-touted, technical advances of the letterpress industry, such as the wrap-around

plate? Only time will tell, but the feeling here is that lithography will be making forward strides for a long time to come.

### Court Rules Against ALA

IT seems ironic that the new Landrum-Griffin Labor Law, enacted by a Congress outraged by flagrant corruption in a number of labor unions, should be invoked, in one of its initial cases, against a union with one of the finest reputations for enlightened leadership in the whole country.

We refer of course, to the battle waged in a San Francisco Federal District Court last month over the "hot cargo" clauses in contracts between San Francisco litho plants and the ALA. The far-reaching court opinion in effect, rules out such clauses, by which an employer agrees not to require his employes to handle materials from employers whom the union considers unfair, usually struck plants.

ALA attorneys, citing exceptions in the law for the construction and apparel industries, declare they will carry this test case "to the highest court, if necessary."

As the legal battle continues, carefully watched by employers and union members, 15 San Francisco plants and 2,000 workers were idle at press-time, in a strike that started Nov. 17. The outcome of the protracted battle may well set the stage for future bargaining in all parts of the country.

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### Quote of the Month

*"... If history repeats itself, as it usually does, the new labor law will remain on our statute books without substantial change until about 1971. This law came just 12 years after Taft-Hartley, which in turn came 12 years after the . . . Wagner Act."—George A. Mattson, PIA, in address at NAPL convention.*

*(See page 40)*

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# **First Census Report Shows Litho Made 49% Increase in Four Years**

- Commercial printing gains only 8%
- Greeting cards up 30% from 1954
- Offset employment up 26%
- Printing and Publishing  
third among industries

*A special analysis  
by ML's staff*

THE big boom in lithography continues unabated. That is the fact that becomes immediately apparent in a glance at the first preliminary report of the 1958 Census of Manufactures released last month.

In capsule form, here are the salient points of information of interest to lithographers:

- Lithography made a gain of nearly 50 percent (49.1) in value added by manufacture in 1958, as compared with the last census, in 1954.
- In the same period, commercial printing (letterpress and gravure) showed a gain in the same category of 8.3 percent.
- Greeting cards, estimated to be produced about 90 percent by lithography, took a big leap of 30.4 percent in the four-year period.
- In total number of employes, the offset industry registered a 25.6 percent increase, while commercial printing suffered a small (.5 percent) loss. As for number of plants with 20 or more employes, the figures were similar: litho with a 41.3 percent gain; commercial printing with a 2.4 percent gain.
- For the printing and publishing industry as a whole, including all printing processes, books, newspapers, periodicals, typesetting, etc., the gain in employes was 7.5 percent; for value added, 21.6 percent.

The preliminary report, entitled MC(P)-1, is just the first of five such advance reports on the expanded 1958 census of all manufacturing groups in the United States. It is available from the Bureau of the Census, Washington 25, D.C., at 10 cents a copy.

Still to come, in the next few months, are totals for states for all manufacturing combined, general statistics for states by major industry groups, statistics for 60 to 65 of the larger metropolitan areas and general statistics for most countries.

The Department of Commerce further advises that another series of preliminary reports, presenting statistics for individual industries, or for closely related industries, already has been started and will continue through the early months of this year, covering about 400 of the 450 manufacturing industries.

Looking at the preliminary totals for all industries, there was virtually no change in employment in 1958 as

compared with 1954, but a gain of about 20 percent in value added by manufacture. (These figures have not been adjusted for price changes).

The gains for the offset industry are even more dramatic than those registered in 1954 over 1947, particularly when compared with the activity in the letterpress and gravure processes. Even considering the relatively smaller base for the litho industry and its immaturity, as compared with the much older, more settled letterpress field, the figures strengthen the claim of lithography's adherents that it is making dramatic gains, many of them at the expense of letterpress and gravure.

Examining this preliminary report more closely, one finds that litho now has 1,085 plants with 20 or more employees, as against 768 in 1954. Commercial printing now has 1,712 plants in this category, a small gain over the 1,671 reported for 1954. (Note that there are thousands of plants with *fewer* than 20 employees in each process, not listed in this report).

In the value added breakdown, litho has grown to \$878,000,000, from \$589,000,000, while letterpress and gravure is up to \$1,583,000,000, from \$1,462,000,000.

Thus, lithography is now about 55 percent as big as commercial printing, whereas it was only about 40 percent as big four years earlier. Further, 98,000 persons now work in lithography, 20,000 more than in 1954; while letterpress and gravure dropped from 200,000 workers in 1954 to 199,000 in 1958, so litho is about half as big as commercial printing, in number of employees.

Letterpress printers will find little to cheer them in these figures, but it is certain they will share the delight of lithographers everywhere that the printing and publishing industry as a whole is still in a strong third position among the nation's major manufacturing industries, in total number of plants, having moved much closer to the second-place industry—lumber and wood products, in the four-year period.

Here's the statistical breakdown:

INDUSTRY	TOTAL NUMBER OF PLANTS	
	1958	1954
1. Food and kindred products	40,001	42,374
2. Lumber and wood products	37,522	41,484
3. <i>Printing and publishing</i>	35,350	32,531
4. Apparel and related products	29,338	31,372
5. Machinery, except electrical	31,180	25,601

## Printing and Publishing Industries

### 1958 Percentage Change from 1954

(Based on Preliminary Reports from the 1958 Census of Manufactures)

INDUSTRY GROUP	NO. OF PLANTS WITH 20 OR MORE EMPLOYEES	ALL EMPLOYEES	VALUE ADDED ADJUSTED
Printing and Publishing	+12.7	+ 7.5	+21.6
Newspapers	+ 5.7	+ 5.0	+17.1
Periodicals	+ 5.4	+ 6.4	+13.3
Books	+26.3	+19.3	+48.6
Books: Publishing and Printing	+21.3	+14.3	+46.9
Book Printing	+32.7	+21.7	+53.1
<i>Commercial</i>			
Printing	+ 2.4	- 0.5	+ 8.3
Lithographing	+41.3	+25.6	+49.1
Greeting Cards	- 3.0	+ 4.8	+30.4
Bookbinding and Related Industries	+26.1	+16.2	+42.1
Bookbinding	+17.4	+11.8	+26.7
Miscellaneous Bookbinding Work	+20.0	+33.3	+64.7
Printing Trade Services	+15.1	+ 8.3	+25.1
Typesetting	+31.4	+20.0	+43.0
Engraving and Plate Printing	+53.6	+25.0	+65.9

It will be noted that printing and publishing and machinery were the only industries in the top five to make gains in the four-year period.

The Department of Commerce cautions that "the figures shown in this report have been subjected only to a preliminary review; such totals, therefore, must be regarded as tentative approximations of the final Census figures." The 1958 Census of Manufactures is the 27th such census of the U.S. since 1809.★

## General Statistics for Commercial Printing, Lithographing

INDUSTRY	1958								1954		
	No. of Plants with 20 or More Emps.	ALL EMPLOYEES		PRODUCTION WORKERS				Value Added, Adjusted (Million Dollars)	Value of Shipments, New (Million Dollars)	Capital Expenditures, New (Million Dollars)	
		Number (1,000)	Payroll (Million Dollars)	Number (1,000)	Man-Hours (Millions)	Wages (Million Dollars)	Value of Shipments, New (Million Dollars)				
Commercial Printing	1,712	199	1,015	156	314	759	1,583	2,721	(*)	1,671	200
Lithographing	1,085	98	556	74	144	382	878	1,477	(*)	768	78

\* To be disclosed later

# COLOR

## *Seminar at RIT discusses color vision, light sources and ways of making comparisons and specifying colors.*

*Following are some excerpts from a Color and Color Control Seminar sponsored late last year by Rochester Institute of Technology. The excerpts are taken from a full report of the seminar prepared by Warren L. Rhodes, of RIT.*

*Dr. S. M. Hewhall, VISUAL CONSULTANT, COLOR TECHNOLOGY DIVISION, EASTMAN KODAK*—The complex subject of color vision can be better understood by breaking it down into its several main aspects: (1) The light stimulus to the observer's eyes from the object and its surroundings, (2) the resulting physiological activity in the eyes, optic nerves and brain, (3) the conscious response resulting from this nervous activity, (the actual awareness or perception of color) and (4) the secondary reactions to that perception, such as any feelings or behavior it may arouse.

To give a simplified example, if a pedestrian glances toward a green traffic light, then (1) light from the signal enters his eyes, (2) nervous impulses go to his brain, (3) he perceives the green light, and (4) he starts walking across the street.

This is the broad pattern of color vision in general; it applies in principle to all the problems of color control. He pointed out, however, that the first and third stages are of the greatest practical concern in color

control work. The first because it is entirely external and so most available for manipulation and adjustment, the third stage (color perception) is largely under the influence of the first stage; and therefore all persons with normal color vision see much the same colors. Color perception, or "how it looks," is the main reason for the entire control effort.

The second, or physiological stage, is least understood — there is no entirely satisfactory theory of how the stimulus gives rise to the seen color. Nevertheless the trichromatic theory of color vision still works best with color matching and color reproduction problems.

Testing of color vision is recommended, not merely to insure against basic color blindness but also to estimate the keenness of color discrimination. Persons who are not color blind do vary considerably in their ability to discriminate between small color differences; this ability declines with age. Vision testing is desirable for all personnel who must make or be responsible for color judgments in their work; for it is important to be sure that everyone is speaking the right language.



*Warren Reese, VICE PRESIDENT, MACBETH CORP.* — Prime requirements of light sources are sufficient emission at all wave lengths and enough light for comfortable and

efficient color viewing. There are really three viewing situations all placing different requirements and demands on the light source:

1. Selection of the desired color. Keep in mind the viewing conditions under which the ultimate consumer will look at the product.

2. Matching the desired color with printing ink. This again places critical requirements on the light source. The spectrophotometric curve of the specified color, such as a swatch or artist's rendering, may not be the same as the spectrophotometric curve of the ink combination used to match it. Therefore, metamerism may have an effect on the matching of these colors. For this job, then, it is necessary to have a light source which has sufficient emission at all wave lengths and without bands of strong emission such as those found in fluorescent lamps.

3. Comparison of press proofs with the production run. In this case, metamerism is not an important effect and the requirements on the light source are less stringent. It is necessary only to have sufficient emission at all wave lengths and intensity enough for comfortable and efficient color viewing.

Color transparencies usually have a saturation which exceeds the capabilities of the printing process. When this occurs it is extremely difficult to reach an agreement concerning satisfactory reproduction. Here again

standardization of light sources is very important.



**F. L. Wurzburg Jr., PRINTING INK DIVISION, INTERCHEMICAL CORP.** — The eye is an exceptionally good device for making comparisons of colors which are side by side. In this viewing situation no instrument is equal to the task. When the samples are separated by space or by time, however, the precision of the eye declines.

The basic tool of color measurement is the spectrophotometer. The spectrophotometric curve is a complete and unambiguous record of the selective absorption properties of objects. The spectrophotometric curve, however, does not in itself tell us how a color will look. In order to determine how the color will look it is necessary to use the three receptors theory and convert spectrophotometric curves into data which can be plotted on a graph.

The CIE system of color specification is very useful in this respect because the three receptor curves and the method of plotting have been accepted by international agreement. The data converted from spectrophotometric curves is plotted on a two-dimensional graph. The hue of the color is indicated on the graph by "dominant wave length", the saturation by "purity" and the lightness by "luminance". Obtaining colorimetric information by means of spectrophotometry is the most precise and accurate method available.

Colorimeters have been developed to make the job simpler and easier. These colorimeters attempt to match the CIE curves by using appropriate filter-photocell combination. None of the existing colorimeters is entirely successful in achieving this match. The colorimeter may be tested by means of two simple requirements. All colors which look alike must give the same values on the colorimeter. Secondly, all colors which do not look alike must give a different result on the colorimeter.

The inaccuracies of a colorimeter can be reduced by using a "hitching post." In this instance, the reference

color or color standard should be made which has a spectrophotometric curve very similar to the color to be measured. This reference standard can be calibrated by the Bureau of Standards or by one of the companies providing this service. When using the colorimeter, then, the sample color is always compared against this standard. In this way errors due to inaccurate match of the CIE color mixture curves and errors due to instrument scale linearity are both reduced.

Unless the curve of the filter-photocell combination closely approximates the CIE standard observer, photoelectric instruments should not be called colorimeters. These devices are unsatisfactory for determining how a color will look because they fail to meet the two previously stated requirements. In addition to this, it is difficult to get two of these instruments to read alike.

Densitometers, however, are useful for controlling the press operation where the main job is to set the amount of ink which is being transferred to the sheet. Densitometers are rugged, stable and easy to use.



**W. L. Rhodes, HEAD OF GRAPHIC ARTS RESEARCH DEPARTMENT, ROCHESTER INSTITUTE OF TECHNOLOGY** — There are several ways of specifying a color:

1. *A spectrophotometric curve.* This is the most accurate and precise method of specifying a color. Agreement among the spectrophotometers is very good and the errors discussed by Mr. Wurzburg, relating to colorimeters, are not present. No spectrophotometer has yet been made which duplicates the average viewing situation. Although this is a handicap, it does not nullify the advantages in using a spectrophotometer in color measurement.

2. *"Permanent" standards.* These standards have a long color life but even these change in color with time. The best known of the "permanent" standards are ceramic, baked enamel and plastics. It is unlikely that the spectrophotometric curves of these standards will match the spectro-

photometric curves of production samples. Therefore, when comparing the standard in the sample visually, several light sources should be used and any metamerism observed.

3. *Color sample.* The most useful color standard for control of production is the sample, whether it be a printed product, a painted sample or a cloth swatch. The least amount of disagreement will result from comparing production samples with the production run. Occasionally a printer must be aware of the possibility of a metamerism.

Although visual matching during production is the most useful means it is often necessary to specify tolerances. Since tolerances are three dimensional — hue, saturation and lightness — it is extremely difficult to prepare physical samples to use for visual tolerance limits. For this reason it is often desirable to specify tolerances in colorimetric terms.

Spectrophotometric limits are unsatisfactory because, as Dr. Newhall pointed out, the spectrophotometric curve is not a good indicator of the appearance of color; and the curves may be especially sensitive in some regions, depending upon the color. Although applying plus and minus limits to tristimulus values is somewhat better, it is still not satisfactory. The reason for this is that the CIE diagram is non-uniform with respect to color differences. Small distances in some regions of the CIE diagram give rise to large differences in appearance of colors, whereas in other regions large differences in points on the diagram give rise to small visual differences.

There are several devices which have been developed to try to overcome these deficiencies of the CIE diagram. Most of these devices are mathematical transformations of tristimulus values. Reference to uniform chromaticity scales and other transformations such as the Adams and Hunter are adequately covered in the textbook distributed at the seminar, *Color in Business, Science and Industry* by Deane B. Judd, National Bureau of Standards.

During the discussion several of  
(Continued on Page 119)

**I**F you lost the use, for just 30 days, of one of your presses, how much would it hurt?

Of course, how much it hurts would depend on a lot of things, but more and more new presses are being designed around a specific product, a certain kind of printing of a certain size, and each new press is handling more and more work, faster, and leaves just that much bigger hole when you lose it.

A fire, even though it may not consume a press, can easily damage it to the extent that repairs will take longer than you can afford to wait. The actual fire loss may be quite small in comparison with the costs of side effects.

One death per million man hours can be considered a pretty fair safety record, but, one unprotected hazard which leads to one fire per any period of time, and you may not have any records left to keep.

A hazardous machine can injure a worker for lack of a safety device, but if all goes wrong the worst it can do is kill him. It's at least a limit on what you may expect. But a hazardous process that causes a fire has no limits on it, except total destruction of your business.

A flying piece of metal hits a man just above the eye and does no damage, but the next time it may put his eye out. You must be vitally interested in the non-injuring accident because of the fine line between it and the accident that disables. The near misses are in fire safety, too, because every fire you have is, at the same time, a lost time accident and a near miss. No matter how small, a fire costs something—time if nothing else—and no matter how large, a fire could have been bigger!

Each fire is both a failure and a success. You failed because the fire occurred, you succeeded because the plant is still standing. Therefore, you must approach the fire safety problem as you do the overall personnel safety problem. That is, any fire, or, more important, any hazard which may

From a talk presented at the recent meeting of Printing and Publishing Section, National Safety Council.

## What Would a Fire Do To You

By **Jack Stroube**

Assistant to Manager, Employee Activities and Safety  
R. R. Donnelley & Sons Co., Chicago

lead to a fire, is potentially the one that burns you down.

### Watch the 'Small' Things

And this requires watching what most people consider minor infractions. One ordinary can of lacquer thinner can burn you badly, even though you may already have 200 safety cans. One empty or missing extinguisher can be the cause of considerable damage, and it doesn't matter that you have a fortune tied up in fire equipment. A single man, indifferent to the hazards of fire, and ignorant of the protective equipment provided, can be your greatest hazard.

This is hard even for the safety man to keep in mind, and it is much more difficult for the worker to recognize, especially if these "minor" hazards are being overlooked by you. Once you compromise these safeguards in one area, they soon begin to deteriorate throughout the plant, because to a department concerned primarily with production, these individual hazards will always seem minor.

### Basic Causes

From documented records of fires in printing plants, the NFPA has gathered statistics and separated the major hazards. Here, basically then, are the causes of the fires we, as a group, have had.

- Over half, (54 percent), of all the recorded fires in printing establishments, started from common hazards.
- Almost 80 percent of the fires due to the common hazards result from these four causes:

1. Smoking and matches,
2. Rubbish disposal,
3. Electrical defects, and
4. Heating defects.

Eliminate careless smoking which, in itself, accounts for 30 percent of the common hazard fires, and the other causes can be broadly grouped under the heading "Maintenance and Housekeeping."

And careless smoking, where allowed, is also tied in with housekeeping. Good housekeeping practices reduce the fires from careless smoking, and usually help control careless smoking itself.

Of course, it would be ideal to eliminate smoking altogether in manufacturing areas. But usually this is impossible and is unnecessary except in certain areas. It will suffice to strictly control the areas where smoking is allowed, and to provide receptacles in these areas for safe disposal of cigarettes.

But there must be some hazards that make the printing industry different!

Forty-six percent of the recorded fires originated in the so-called "special hazards," and most of those were traced to three basic causes. Almost 70 percent of the special hazard fires resulted from these causes:

1. Gas driers with their connected ducts and residue,
2. Oily rags, and
3. Flammable liquids.

Improved methods of ventilation, drying inks, and new inks are needed. Non-flammable solvents, cleaners and improved methods of lubrication must come to eliminate these hazards. Meanwhile, we must recognize them

# Your Plant?

and protect against them. But what is so different about gas driers, dirty ducts, oily rags and flammable liquids?

These are fairly common hazards. It's the method of application and the degree of use that makes them "special" to the printing industry, and you will find that almost all fire protection hazards fall into this pattern for any industry.

## Six Hazards

The special hazards are really only common, basic hazards with some special method of application which may increase the normal probability of this hazard starting a fire. We don't really have too many basic hazards to worry about. Let's list them:

1. Housekeeping — this includes waste disposal, oily rags, dirty ductwork; storage and warehousing is basically a housekeeping hazard;
2. Hot surfaces — driers, ovens, boilers, and their connected ducts, and the fuel handling connected with these devices;
3. Open flames or sparks — again may apply to driers, boilers, etc. but can also include welding, smoking, static;
4. Flammable liquids — includes storage, painting, mixing;
5. Electricity; and
6. General maintenance — poor maintenance can create a hazard, where none previously existed.

One or more of these items properly mixed with blueprints, engineers, and complicated gears, valves, but

tons, and flashing lights, become our "special" hazards. If you can learn to look through the words, you find it is not hard to identify the trees.

Once you have identified your hazards, you can do one of these three basic things to each hazard in the process or machine: *eliminate it, isolate it, or protect it.*

To eliminate or isolate a hazard you can rely on your own company's engineering people for details and performance. To protect a hazard, once found, you may use one of the many companies in the business of providing the engineering know how to do this. And the job of deciding whether the possible consequences resulting from a hazard are worth the money required to do something about it, must be a group management effort.

For the smaller shop without an engineer, there are many companies that can provide the information necessary to accomplish any of the three items. For one, try asking your insurance agent if the company you are insured with provides engineering services. You may also be able to reduce your insurance costs by following their recommendations. For others, look in the Yellow Pages or check with the Better Business Bureau or the fire department.

The same process can be applied to new equipment and processes. The hard job may be in seeing that these new things are made available to you early in their development stage, but this is a communications problem and you are already expert in that field.

So, really we have no hazards so mysterious that a person, trained in looking, cannot break down into every day items. Then it becomes a matter of using the services of one of the established fire safety organizations.

The NFPA or the NBFU will have a pamphlet recommending the best protection for any known hazard.

The big problem in fire prevention in the printing industry is much the same as the problem all industry faces: how to prevent the accumulation of unplanned for, minor hazards

from starting fires. And this problem results partially from the fact that fire protection is still too much an offshoot of general safety. It must be considered on a level above that of safety shoe or safety goggle programs; it must be woven continuously through your whole safety program.

Most companies cannot afford to maintain a separate fire prevention section, as some companies are now doing, but safety men can maintain a fire prevention section in their own heads. The trouble with fire safety is basically lack of good planning or in many cases lack of any planning.

So, start at the bottom. Inspect your plant for housekeeping, oily rags, poor lubricating procedures, poor waste disposal, flammable liquid handling! Then check your fire doors. Half of them probably are damaged or even inoperative.

Are the fire extinguishers full? Are they regularly checked and weighed? Has your fire hose ever been tested, in fact has it ever been taken out of the cabinet to see if it's still in one piece? Is the sprinkler system checked regularly, do you know if all the valves are always open?

After you have found your major defects, you can write basic standards and requirements for your people or modify existing standards to your need.

There are a great many people throughout your own plant who can aid a fire safety program if you only can give them some basic standards with which to work.

## Use of Sprinklers

The fires which still will occur are going to have to be put out fast, while they are still small. If your plant is sprinklered, your job is easier. It's a matter of record that 98 percent of the fires in sprinklered printing plants were put out or held in check by the sprinkler system, but, of course, there is always the danger of water damage.

I think you will find that most of the damage any water will cause will be accomplished in the first few seconds, so letting the water run a little longer will not add much. And be careful who is allowed to

turn the valve off. It had better be someone of responsibility—someone who knows when *not* to turn it off.

Automatic sprinklers, and all fire equipment, hose, extinguishers, doors, etc. need regular inspection, maintenance and testing to insure operation.

There is too much tendency to assume that the fire equipment will always operate. Unlike most safety equipment, fire fighting tools are not constantly in use, and time, dirt and unnoticed physical damage can take its toll. Merely looking to see that the equipment is still there is not enough.

See to it that the people responsible for the equipment understand its operation, know how to maintain it and test it. And see to it that this is all in writing.

Seeing that all this is accomplished is a big job, and an important job, but there is another, equally important job to be done. Before we go into this second job, I would like to quote parts of an article from a recent Factory Mutual publication. "Significantly, most of industry's disastrous fires in recent years have been the result not so much of weakness in the physical safeguards as of failures of the human element. The human failures have been either failures to maintain plant preparedness, thus making the physical protection ineffective when needed, or they have been mistakes of omission or commission during the emergency, nullifying the safeguards which had been provided." The article goes on to explain that chief among the failures are those relating to the handling of automatic sprinkler protection.

#### **Basic Key To Safety**

The concluding statement can be your basic key to real fire safety:

*"The answer is fully trained personnel, properly organized under competent direction. Relatively few people are needed to assure fire safety, but they must be present when needed and they must know what to do . . . and have the authority to do it."*

So finally we come back to the foreman and his men. They must be

talked to specifically about fire safety, given information concerning general hazards and given the job of performing their own routine weekly or monthly inspections, checked and backed up by your inspections. By "you" I mean whoever is working on this program. In the large plant the safety director should back up the foreman's inspection, or the safety committee's inspection. In the small shop the foreman, or even the owner should back up the crew's inspection.

Most important, your personnel must be trained in the use of the equipment provided them. They should be exposed where possible to controlled, relatively large fires to practice on. A man who has never seen anything larger than a backyard bonfire or never attempted to use an extinguisher on anything larger than a fire in a sawed off oil barrel cannot be expected to perform well on a fire in a building where he must also fight smoke, heat and confusion. For, after all of your previous work, how big each "little" fire grows, may depend finally on one man with one small extinguisher in his hands, and he better know how to use it. He can do better if he knows its limitations as well as its capabilities.

#### **Starting Point**

But the starting point in training is much more basic than that. If you will ask around in the shop, I think you will find a surprising number of men haven't the slightest idea of how to operate an extinguisher. Many of them can't tell one from the other and few know which to use on what type of fire.

You are spending money on equipment that a large percentage of your people don't understand and won't take the trouble to find out about. If this equipment is to be at all useful, you're going to have to show them how to use it, then let them try it out. And you must impress upon them the fact that all this preparation may not be needed but once, but that once can be worth the effort.

From a thorough and continuing training program you will not only form an organization of men who will

be able to stop the small fires,—you will also gain valuable side effects. Just as the safety committees have proved invaluable to accident prevention, an active, informed fire-conscious work force, whose interest and respect for fire is maintained, can prove invaluable in fire prevention as well as in fire fighting.

By being fire-conscious they will change a lot of previous poor practices, and you will find that in the areas where the foreman and his men are active and aware of the dangers of fire, general maintenance and housekeeping will be well above average. This in itself can pay the way of the training program.

And, as a morale factor for you and them, you will find that most of the men thoroughly enjoy these programs and the more realistic they are the more enjoyable. It brings to them, more so than expensive equipment, posters and slogans can, the fact that management must be interested in safety to go to all this trouble. If you can sell the men that fact, your whole safety program can gain from it. An occasional training session can also be a real boon to the safety director who finds he's shown all his movies.

#### **Problems of Suburban Plant**

Now, what about the printers and lithographers who have built new plants 20 or 30 miles from a big city fire department? There may be a new fire company in the area but, most likely, the biggest thing this new fire department ever saw was when Joe's chicken coop caught fire.

Although most volunteer fire departments are quite capable and often more earnest than their paid counterparts, they are not usually equipped to handle a large plant fire.

A new plant can present you with many fire problems from the start, and you had better see they are taken into consideration. You must fight economy of materials which may add flammable construction to a building already only barely non-flammable. Insist on automatic sprinklers, see that sufficient water supply and distribution systems are provided for

*(Continued on Page 121)*

**As we go to press:**

# NALC Delegates Favor Plan To Hire Executive Secretary

**But no way yet approved to finance the move...**

***discussion dominates three-way phone meeting***

THE National Association of Litho Clubs moved a step further, late last month, toward obtaining a permanent executive secretary and establishing a permanent headquarters for the group.

No official action was taken by the NALC Council of Administration at its annual three-way conference phone meeting, but approval was voiced for the plan in Hartford, Oshkosh and Tulsa.

The regional meetings, with delegates from most of the more than 30 litho clubs in attendance, were held Jan. 22 and 23. National officers were assigned to preside at each session.

The mid-year council meeting provides delegates from the various clubs an opportunity to hear interim reports from national officers, and to discuss proposals which will come before the full convention in the spring. This year NALC will meet in Boston, May 19-21.

It was generally agreed, at all three meetings, that an executive secretary is needed by the association to improve communications, simplify paper

work, give centralized direction to the group and give continuing guidance to NALC programs.

Ironically, the discussion of the need for such an officer was hampered by poor communications before the mid-year meeting. At the eastern meeting, an itemized breakdown of NALC expenses was not received by meeting time, and at the mid-west meeting, a resolution dealing with an increase in member dues—to make possible the hiring of an executive secretary—was not received.

The resolution proposes an increase in per capita dues for all members from \$1.50 to \$2.00 a year. The consensus of the delegates was that, while an increase is needed for such a project, an additional 50 cents a year is inadequate. It was indicated that a resolution seeking even higher dues, perhaps double the present rate, might be forthcoming at the national convention.

Remembering the bitter battle over a dues increase in 1956, several delegates expressed the fear that they

would have a very difficult time persuading boards of governors and members of their clubs that such an increase is justified. This problem seemed more prevalent among the bigger, older eastern clubs, whose members, it was reported, sometimes feel they can "go it alone" without NALC.

In order that they might present convincing arguments for the increase, the delegates at the eastern meeting asked first for a complete financial breakdown to ascertain just how much money is now being used for NALC activities, and how much more would be needed to obtain an executive secretary.

Furthermore, at the eastern meeting, several delegates declared that they are not perfectly clear as to the purpose of the NALC. The original statement of the founding officers was reviewed and discussed, but the delegates felt that perhaps it is time to set forth once more a clear statement of the reasons for the NALC and the exact objectives for which it is striving.

*(Continued on Page 114)*

**Eastern delegates, Goss, Rubenstein, Fraggos, Goss, Geegh and Rice take turns during conference phone call with Oshkosh and Tulsa.**





## Planning for a

# NEW PRESS

*The time to start is not after the press  
has been installed, but when you sign for it*

By **Richard J. Schmied**

Technical Representative, Offset Division  
West Virginia Pulp and Paper Co.

After making your decision as to what kind and size press will suit your particular needs, don't sit back relaxed and expect the press to go into full production immediately. This can be achieved only if a carefully planned procedure is followed. The time to start is when you sign on the dotted line.

If this is your first venture in offset lithography there are many things to be considered and to be prepared for. Positioning of the press in your plant is an important factor. Light requirements are most critical. Availability of water close to the press is essential. Plenty of paper storage room near the press is absolutely necessary. You will need extra press skids which you can buy or have made to specification. Racks for extra rollers will be needed. The press manufacturer will be glad to discuss and help you with any problems unfamiliar to you.

Before your press arrives, it will be wise to have all necessary additional press equipment on hand, such as:

1. Water buckets
2. Sponges
3. Blankets
4. Test plates
5. Backings for plate and blanket
6. About 5,000 sheets of #70 uncoated offset paper cut to maximum press size for test runs, and
7. Ink and chemicals.

You can have your choice in regard to the type of dampening system you prefer. Test plates should be made up with various screen values and solids

positioned in such a way that they will give you accurate information as to the performance of the press, with regard to ghosting, gear streaks, roller streaks and ink disposition. Don't go out of your way trying to dream up difficult lay-outs, give the press a fair chance to prove itself.

### **Schools for Pressmen**

If your pressman has no previous experience in offset lithography, it would be wise to send him to one of the qualified schools where he can receive training in fundamentals prior to press installation. Some press manufacturers will allow your maintenance man to be present during the entire assembly, testing and tear-down of your press on the factory erection floor.

This is an opportunity for the maintenance man to acquaint himself with factory settings and timings recommended by the manufacturer. The press assembly in your plant is another good chance for the maintenance man and pressman, to work with the factory erector and become thoroughly acquainted with all phases of the press mechanics.

Before press operation begins, let them study the press manual you will receive with the press. Too many of these manuals are thrown into a drawer and forgotten. If this is your first experience with offset, or the first press of its kind in your plant, some manufacturers will supply a qualified press demonstrator upon request. The demonstrator will take over after the press has been erected and checked out by the erector. He will instruct your pressman in all phases of offset lithography and press mechanics. The length of his stay will depend on the size and number of color units involved.

### **Install a Plate and Blanket**

After your press is erected and wired, and adjustments and timing have been completed, you will be ready to install a test plate and blanket. The undercuts of these two cylinders are stamped on the frame of the press, or in the cylinder gaps. They are also included in the press manual. Your total caliper of plate, blanket, and packing under each should exceed the total undercut of plate and blanket cylinders by .002 to .004. The manufacturer will specify how he wants packing distrib-

*Richard Schmied has been in on many a press installation in his day. Before joining West Virginia, he worked up from apprentice to pressroom superintendent at Rand McNally's offset division. Later he served with Miehle's installation department as a tester, trouble shooter and press demonstrator. He has also taught presswork at Miehle and ALA schools.*

*His wide experience in all types of offset work qualified him well for his position on the NAPL technical session panel at the association's recent convention in Kansas City.*

uted between plate and blanket cylinders. Bearer pressure and preload will then be set. Paralleling of blanket to impression cylinder will follow. Impression cylinder bearers are always undercut below the cylinder body. This allows you to underpack the blanket for a shorter print length and still retain contact between blanket and impression cylinder surface.

Installation and setting of press rollers will be the next step. A little extra time and caution used here can save you many problems later on. It would be wise to consult with the roller manufacturer in regard to the type of rollers that are advantageous to your particular line of printing. On larger size presses, roller sag can be overcome by having rollers crowned. Form rollers must be driven by vibrators, not by the plate cylinder. Too much bounce against plate cylinder can cause roller skid, scumming at gripper edge, and a surplus ink charge at start of print. The recommended form roller stripe, when dropped on the plate, is  $\frac{1}{8}$  to  $\frac{1}{4}$ " on the smaller size presses, and  $\frac{1}{4}$  to  $\frac{5}{16}$ " on larger presses. Water rollers must be given the same consideration and are set in approximately the same manner. Use caution when making initial adjustment of ink fountain blade. Primary setting should be made in a series of  $\frac{1}{2}$  turns on each screw, working from center to outsides.

#### **First Test: Solid Print**

You are now ready for your first tests, which is for a solid print. Apply a medium tack ink to rollers and back off impression cylinder until you are sure there is plenty of clearance between it and blanket cylinders. Roll the plate solid and print four sheets. Check ink transfer between plate and blanket. If there is no sign of ink transfer to paper, increase impression cylinder pressure about .002 at a time and repeat the printing. When the entire sheet starts to show signs of ink, increase impression cylinder pressure .001 at a time until you have a full strong solid. The print margin of the solid at the gripper edge should be  $\frac{3}{8}$ " and parallel.

If your last move of .001 does not improve the appearance of the solid,

back impression cylinder off to previous setting.

*A good thing to remember in adjustment of impression cylinder is that when backing it off, go anywhere from .003 to .005 beyond the point of print, then bring it back to exact print pressure.*

This procedure will take out all slack created by movement of adjusting gears. *Never* move impression cylinder either way while press is on impression. If press is multi-color this entire procedure will have to be repeated on individual units.

#### **Wet Print Test**

After a good solid print has been obtained our next step will be a wet print test. Individual dot structure should be examined from gripper to tail end of sheet and compared to press plate. Print length in both directions should be measured and checked with press plate. Register tests are made with the first unit of a multi-color press. Print about 50 sheets at 3,000 i.p.h. Take printed sheets out of delivery and place them in the feeder, using the same gripper and side guide. Repeat printing. Check double-printed sheets for register. Increase press speed about 1,000 i.p.h. and repeat until maximum press speed is reached. I would recom-

mend changing the side guide and repeating the entire test. The double printed sheets will also give you a good idea as to the amount of sheet fan out you can expect on future register jobs.

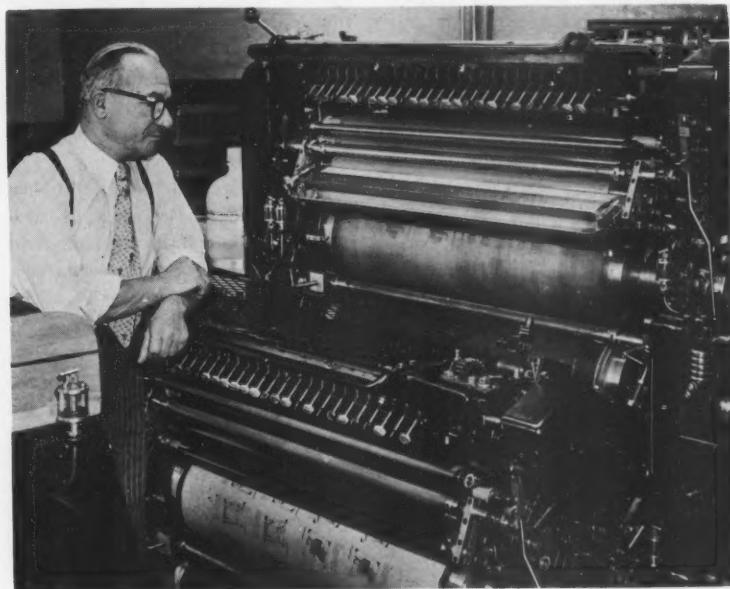
#### **Color Separation**

On all multi-color presses, it is advisable to make a test for color separation between printing units. This is done by printing sheets on the first unit to go on. If there is no separation or movement of the sheet in regard to relative position on impression or transfer cylinders, the print from the first unit will stay sharp, clean and appear as one impression. On four-color presses this operation will have to be repeated by following with units 1-2-3 then 1-2-3-4.

Use inks with average tack ratings for all tests. Inks with a high tack will tell you nothing and probably wrap up a few blankets. Don't put the most difficult job ever printed in your plant for a first run on the new press. You can work up to this in easy stages while the "bugs" are being taken out.

Have your people learn all there is to know about the mechanics of the press. Keep press maintenance at a high level. Give the press an even break and it will come through with flying colors—and all of them in register!★

"Give the press an even break and it will come through with flying colors—all in register!"



*Some thoughts on*

# Labor-Management Relations

By **George A. Mattson**

Director of Lithographic Services,  
Printing Industry of America

**I**N THE past decade, there have been many and varied industrial and/or labor relations developments or situations which have had a decided impact on lithographic management in its effort to operate on a sound business basis. Certain but not all of these circumstances may be briefly stated as follows:

1. The impact of year to year wage increases in amounts considerably in excess of the percentage increase in the cost of living and in excess of the average year to year wage increases for employees in other American industries.

2. Impact of the reduction in the number of hours in the standard work week from 40 to 35.

3. Increased labor costs due to increased vacation benefits, increase in the number of paid holidays, contributions to finance health and welfare benefits, etc.

(Lithographic production workers are in an enviable position compared with workers in other American industries. Union officials on more than one occasion have stated—"our increased benefits have been fantastic."

4. Jurisdictional claims of the several unions in the printing industry.

5. As a direct outgrowth of the jurisdictional claims, lithographic management has been forced to include or acquiesce to the inclusion in their ALA contracts, provisions, which, if violated, could well have the ultimate effect of closing down their operations.

6. There are those problems which arise out of the day-to-day employee and union-employer rela-



George A. Mattson

tions reflecting, more often than not, mistrust, distrust and misunderstanding, giving rise to grievances, real and otherwise.

7. Problems, particularly during periods of contract negotiations, which arise from slowdowns, ban on overtime, threats of work stoppages and other forms of economic pressure.

8. Shortage of adequately trained skilled help, and lack of a dynamic and well organized apprenticeship training program.

9. Extensive manpower problem with respect to the shortage of executive and administrative personnel in such areas as sales, finance and production supervision.

10. Problems which occur due to the lack of well defined company policies, practices and procedures particularly with respect to the administration of personnel, shop practices, and the all important factor of management's right to manage.

At this point it might be appropriate to comment on the Labor-Management Reporting and Disclo-

sure Act of 1959 — which, in all probability, will commonly be known as the Labor Reform Bill. If history repeats itself, as it usually does, the new law will remain on our statute books without substantial change until about 1971.

This law came just 12 years after the enactment of the Taft-Hartley Law of 1947, which in turn came just 12 years after the National Industrial Recovery Act, the labor provisions of which were enacted as the Wagner Act, when the National Industrial Recovery Act was held to be unconstitutional.

I think it is safe to predict that if and when the new 1959 law reaches its 12th birthday, there will be many questions regarding its interpretations and application that will still be unsolved just as is the case today insofar as the Taft-Hartley Act is concerned.

You will recall that when the Taft-Hartley Act was enacted, it was loudly condemned by all segments of organized labor. It was referred to as a slave labor law, and it was freely predicted that it would severely cripple the organized labor movement, if it did not destroy it entirely.

None of those dire predictions came to pass. The membership of organized labor continued to grow and flourish under the Taft-Hartley Act, just as it did under the Wagner Act. In similar vein, union representatives are predicting like circumstances will prevail under the new 1959 law. Again, history repeating itself, it is safe to predict that these fears of organized labor are unfounded. This is to say, that 12 years hence, lithographic management having a union contractual relationship will still be con-

From an address delivered at the 27th annual convention of the NAPL, Kansas City.

fronted with labor relations problems arising out of this relationship.

Under this law it is quite likely that employers as trustees of jointly administered Health and Welfare plans will be required to be bonded, as will those employers who are deducting certain sums of money from employee's wages and forwarding these sums of money directly to pension trust funds, unilaterally administered by the union. Also, employers who are operating under contracts which have a check-off of dues provision will, in all probability, also be required to be bonded.

So far as the lithographic industry is concerned, the most significant provisions of the new law are those dealing with secondary boycotts and struck work. Struck work clauses, under which an employer agrees that he will not require any employee to perform any services on work received from or destined to employers where members of the union have a dispute with the employer or the union is on an authorized strike, have been long included as a part of contracts negotiated by the Amalgamated Lithographers of America and indeed other printing trade unions.

In addition to the struck work clauses, the Amalgamated Lithographers of America has insisted upon an additional provision to the effect that employees will not be requested to handle or process any materials which come from shops not under ALA collective bargaining agreements or which do not bear the ALA label.

Also, should an employer fail to comply with the provisions of these clauses as briefly stated above, the union shall have the right to terminate the contract at its discretion together with the right to strike.

While these clauses have been a part of ALA contracts for some 12 years, they have, to the best of my knowledge, never been tested as to their legality. In this connection the new law specifically states:

*"It shall be an unfair labor practice for any labor organization and any employer to enter into any contract or agreement, ex-*

*pressed or implied, whereby such employer ceases or refrains, or agrees to cease or refrain, from handling, using, selling, transporting or otherwise dealing in any of the products of any other employer, or to cease doing business with any other person, and any contract or agreement entered into heretofore or hereafter containing such agreement shall be to such extent unenforceable and void."*

There is some reason to believe that ALA attorneys contend that the language of the Struck Work and Trade Shop clauses does not violate the new law. Other attorneys with whom I have talked, including one who helped draft the new law, contend that the intent, purpose and implication of these clauses violate that section of the new law just quoted.

It is not improbable that these two drastically opposed contentions will be resolved in San Francisco by the NLRB unfair labor practice charges involving the language of these two clauses.

Also, it is quite possible similar charges will be filed by employers in certain other cities because, and I quote, "we have no other choice".

Thus, forces beyond the control of management create industrial relations problems, the solution of which are unpredictable. As with the Taft-Hartley Act, these twists, plus many more that I am sure will arise, will I believe bear out the prediction that 12 years hence the courts will still be interpreting just what the various provisions of this new law really mean.

With respect to production, management has had to concern itself with finding ways and means of increasing productivity—which, from a realistic point of view, is essential and indeed the only assured way of recovering increased cost of doing business. The rise of productivity in American industry generally in the past few years, difficult as it is to measure, has been estimated at a net increase of somewhere between 2½ and 3½ percent. In our industry it is doubtful that a

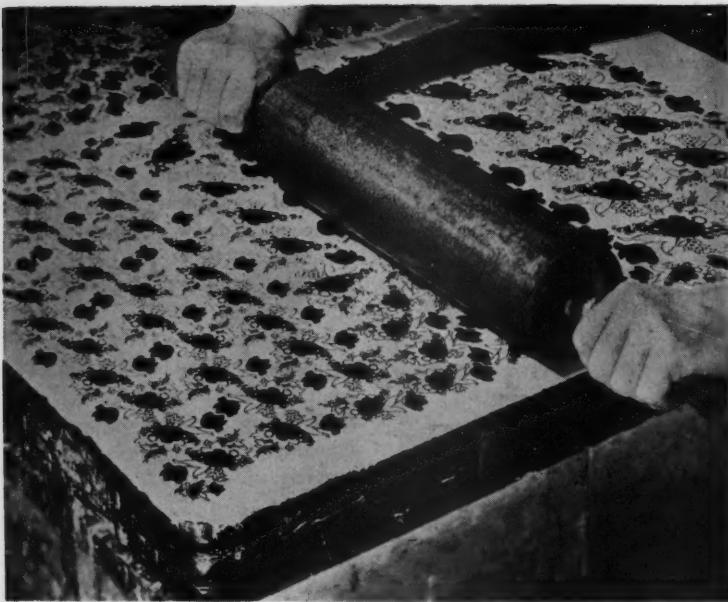
corresponding percentage increase in productivity has taken place.

To be sure there have been many significant and important technological developments as a result of the work and ingenuity of the research staffs of equipment manufacturers and suppliers, the work and sometimes unrewarding efforts of the Lithographic Technical Foundation and other research organizations. Then, there have been the efforts of many individuals in many lithographic companies. Without these combined efforts it would have been impossible for the lithographic industry to grow and progress.

Anticipated increases in population; the demands and need for increased capital outlay; a continuous demand for consumer goods and services; new consumer products, new housing; new roads and other forms of public construction; and increased employment opportunities calling for new and higher skills—are but a few of the potent factors which hold promise for continued expansion and development in the coming decade. They should make it a truly exciting period—not just to dream about but to *plan* for.

In the field of labor-management relations somehow there must be a way found to carry out these relationships in an atmosphere of objectivity rather than in a highly emotionally charged atmosphere resulting in more heat than light. In substance it simply is a matter of striking a nice balance between the recognized need of employees, employers and the all important boss—the customer. This will require statesmanship of a high order.

I think that it is axiomatic that all men want to succeed, but some want it so badly that they are willing to work for it. Besides our arms and legs, our creator gave us two ends—one to think with and one to sit with. Our success and progress depends on which end we use most. It is sort of heads we win—tails we lose. The choice is yours.★



***The heart of lithography is***

# **STONE**

*By Joan K. MacNeary*

## **Part 2**

**F**OLLOWING its invention by Senefelder in 1798 and its subsequent commercial development, lithography quickly spread to America where Bass Otis, a silversmith's apprentice who had painted many portraits, was accredited with making the first lithograph in the United States.

A visiting Russian, writing about the United States in 1812, gave the opinion, "it is noteworthy that every American considers it his sacred duty to have a likeness of Washington in his home. A Washington portrait is the finest, and sometimes the sole decoration of an American home." And, accordingly, it is reported that bust-portraits of Washington were among the earliest lithographs.

The Pendletons of Boston, who have been credited with being the

first commercially successful American lithographers, issued prints of both the Gilbert Stuart and the Rembrandt Peale likenesses of Washington. From these early lithographs stem varied versions published by a dozen subsequent lithographers.

Washington was honored in portrait not only at home, but abroad as well. Toward the close of the eighteenth century, Captain James Blight of Philadelphia, an East India trader, carried with him, on a voyage to Canton, China, one of Stuart's portraits of the first president. Shortly thereafter a number of similar portraits, painted on glass, were brought out from China and offered for sale in Philadelphia until artist Stuart placed an injunction upon their sale.

Rich in Americana, these imprints taken from the stone and known as

lithographs, offer historical data rich in detail, detail which otherwise would have been lost to posterity. Although Currier & Ives produced the most works in number, other lithographers, before and after them, contributed much to American stone art, and, without them the overall stone picture would not be complete.

### ***Father and Son Team***

Another father and son team turned out a great print which Nathaniel Currier printed in 1855. This print, by J. B. Smith & Son, entitled the "Clipper Ship 'Great Republic,'" was transferred to stone from the Smith's drawing by C. Parsons, the artist for Nathaniel Currier. Today, even like Hurd prints, this clipper ship print is a rare item.

Because they are interesting bits of Americana, these prints are still sought today. Most persons are unable to afford the almost priceless early prints, but many can afford a Currier & Ives. Though they were produced in the 1850's, their subjects recorded earlier times, and thus they are accorded the courtesy of the Americana category and, like earlier American prints, are considered folk art of a kind. At the time of their making, however, these Currier-Ives lithographs belonged to the masses who hung them in the harness rooms of the stables, the back houses and the oyster saloons.

American printmaking flourished between 1819 and 1880, illustrating the customs and happenings of the nineteenth century.

### ***Music Lithographers***

Approximately 150 years ago American lithographers began to become active in a very busy business, that of making covers for the sheet music of the popular songs of the day. It is from these sheet music covers, some of them beautiful, framable pictures, that much information can be derived concerning the customs and styles of the early nineteenth century. It is also possible to learn something about the artists who worked on stone, fashioning the sheet music covers. The music lithographers thrived in the 1820's and 30's.

Prior to 1870, there were more than a hundred lithographers making sheet music covers in such cities as Boston, New York, Philadelphia, Baltimore, Chicago, Cincinnati, Louisville and even in San Francisco, but, as in England, American music publishers often printed their songs without the benefit of dates.

Although W. S. Pendleton of Boston usually is described as the first to use lithography commercially in the United States—in 1825, there are indications that lithographic sheet music covers appeared before this date. It has been recorded that The American Antiquarian Society of Worcester, Mass. had in its possession music lithographs done by Henry Stone in 1823 or 1824 whose titles were "Song On Peace" by Coleridge, and, "They're A'Noddin," a sort of early rock'n roll, it is presumed.

This group also possessed the earliest documented music sheet, dated March 14, 1826, with a lithograph by Pendleton of Boston by Artist D. C. Johnston.

It is said that New York's Anthony Imbert was the pioneer lithographer in his area, working on sheet music covers from 1825 to 1831.

#### Booming 1830's

Unlike a century later, the 1830's were boom days for American business, especially those of the graphic arts, including music lithographers. In that decade scores of lithographers made covers for music publishers. Among those who were prominent were Endicott and Swett, and George Willig, Jr., all of Baltimore.

The pictures which these early lithographers made for the covers of popular songs of the day were varied in subject. They depicted buildings, landscapes, ships, soldiers, dancing, portraits, pastoral and rustic scenes, comic themes and historical events.

#### Plumbeotype Method

The year 1845 saw the introduction of the plumbeotype, a method of transferring daguerreotype to paper for lithography. This innovation was immediately adopted by the music industry through the Plumbe National Daguerrian Gallery.

The Revolutionary, Mexican and Civil Wars all were featured in lithographs of scenes on music covers. During the 1830's and 1840's music lithographers did portraits of statesmen, military leaders, musicians and public personalities. A Gilbert Stuart likeness of Washington appeared on a song entitled "I Dearly Love The Free." Presidents were very popular subjects for songs, and sheet music covers bore pictures of Harrison, Fillmore, Buchanan, Lincoln and others.

#### Entertainers and Composers

Were it not for the early American lithograph there would be virtually no documentation of the entertainers and composers of their day. Sartory, Major & Knapp lithographed the picture of one, Louis Moreau Gottschalk, on a music sheet published by William Hall & Son of New York. Similarly, the father of the American ballad, John H. Hewitt, appeared in lithographed portraiture from a Whitehurst daguerreotype version.

Lithographers made hay while the sun shone on Jenny Lind, the Swedish Nightingale brought to America by circusman P. T. Barnum. Her likeness appeared on many sheet music covers as did that of General Tom Thumb, also under the tutelage of Barnum.

#### Stephen Foster's Songs

Finally, any study of lithographed music should include the name of Stephen Collins Foster, American song writer. There is an old print showing Stephen Foster's birthplace in Lawrenceville, Pa. on the site of Pittsburgh, entitled "The White Cottage." Firth, Pond & Co. published Foster's songs, among others, with brightly lithographed covers.

Stephen Foster was the master of the plantation melody, so popular at the time, and his song covers, like the earlier covers depicting presidents and war scenes, were an important contribution to American Art, all made possible by the litho stone.★

*For the first article, see October, 1959 issue, page 69.*

## Litho Schools

Canada—Ryerson Institute of Technology, School of Graphic Arts, 50 Gould St., Toronto, Ont., Canada.

Chicago—Chicago Lithographic Institute, 1611 W. Adams St., Chicago 12, Ill.

Cincinnati—Ohio Mechanics Institute, Cincinnati, Ohio.

Cleveland—Cleveland Lithographic Institute, Inc., 1120 Chester Ave., Cleveland 14, Ohio.

Houston—Univ. of Houston, Cullen Blvd., Houston 4.

Los Angeles—Los Angeles Trade Technical Junior College, 1646 S. Olive St., Los Angeles 15, Calif.

Minneapolis—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

Minneapolis Vocational High School, 1101 Third Ave. South, Minneapolis 4, Minn.

Nashville—Southern Institute of Graphic Arts, 1514 South St., Nashville, Tenn.

New York—New York Trade School, Lithographic Department, 312 East 67th St., New York, N. Y.

Manhattan School of Printing, 72 Warren St., New York, N. Y.

Oklahoma—Oklahoma State Tech., Graphic Arts Dept., Okmulgee, Okla.

Rochester—Rochester Institute of Technology Dept. of Publishing & Printing, 65 Plymouth Ave., South Rochester 8, N. Y.

Pasadena—City College, 1570 E. Colorado St., Pasadena, Cal.

Philadelphia—Murrell Dobbins Vocational School, 22nd and Lehigh, Philadelphia, Pa.

Pittsburgh—Carnegie Institute of Technology School of Printing Management, Pittsburgh.

San Francisco—City College of San Francisco, Ocean and Phelan Aves., Graphic Arts Department.

St. Louis—David Ranken, Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.

Vancouver—Clark College.

West Virginia—W. Va. Institute of Technology, Montgomery, W. Va.

## Trade Directory

International Assn. Pig House Craftsmen  
P. E. Oldi, Exec. Sec'y.  
Room 307; 411 Oak St., Cincinnati 2.  
Lithographers and Printers National Association  
Oscar Whitehouse, Exec. Dir.  
1025 Connecticut Ave., N.W., Wash., D. C.  
Lithographic Tech. Foundation  
William H. Webber, Exec. Dir.  
131 East 39th St., New York 16, N. Y.  
National Assn. of Litho Clubs  
Raymond E. Geegh, Executive Secretary  
1915 33rd St., S.E., Wash. 20, D.C.  
National Assoc. of Photo-Lithographers  
Walter E. Soderstrom, Exec. V.P.  
317 West 45th St., New York 36, N. Y.  
National Metal Decorators Assoc., Inc.  
James G. Smith, Secretary  
P.O. Box 506, Crawfordsville, Ind.  
Printing Industry of America  
Bernard J. Taymans, Mgr.  
5728 Connecticut Ave., N.W., Washington, D.C.

# *San Francisco Strike Continues As Court Rules Against 'Hot Cargo'*

By Ruth Tesser and Catherine Harroun

San Francisco Correspondents

SAN FRANCISCO'S list of struck lithographic plants was shortened by two in mid-January, when the California Printing Co. and the R. J. Cardinal Co. signed interim agreements with Local No. 17, Amalgamated Lithographers of America and put their lithographic equipment back into operation. This left 13 lithographers, struck since Nov. 23, and two trade shops, struck since Nov. 30, still with no lithographic workers. A number of jobs were being sent from San Francisco to the Mid-West, the East, and Los Angeles. The majority of these have requirements too large for the area's non-struck shops, most of which are small or medium-sized.

At press time, these were the current activities and developments in the strike situation:

The union had submitted revised wording to the U.S. District Court by which it hoped to free from injunction its suggested contract clauses concerning "struck work" "chain shop," and "termination." Earlier, on Jan. 13, Judge William Sweigert of the District Court had filed a lengthy "memorandum opinion" in the case of the NLRB v. Local No. 17. This granted the NLRB regional director's request that the court issue a temporary injunction barring the union from striking for, bargaining for, or entering into agreements involving five clauses in its suggested contract. They concerned "trade shop" and "refusal to handle" rules, plus the

three mentioned above. The memorandum stated that those three might be re-worded so as to be legal under present labor laws, and thus no longer subject to the injunction. Meanwhile, Local 17 dropped all five from its contract demands.

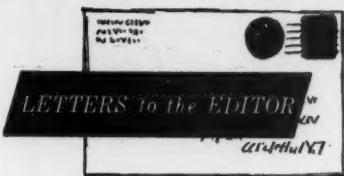
A hearing was being conducted by the regional director of NLRB on the same group of clauses, all alleged to be contrary to the Landrum-Griffin Act. The union and the Graphic Arts Employers Association, representing the struck firms, were both fully explaining their points of view. The hearing started Jan. 20, recessed one day because of the illness of two principals, resumed once more, and was expected to continue for well over a week. At its conclusion, the regional director's recommendation was to be forwarded to the NLRB in Washington for review and final decision. This decision, not expected for at least several months, will then presumably take over in place of the District Court injunction. Either side in the dispute can, however, contest the NLRB decision in the courts. The union has stated that if the decision is contrary to its views, it will "fight it all the way to the Supreme Court, if necessary."

Negotiations on a contract to end the strike were meanwhile continuing in San Francisco. Union and employer representatives were meeting frequently, discussing mainly economic factors. GAEA revised its Dec. 19 offer, suggesting that the \$2-a-week

health and welfare payment for the first year of a two-year contract can be applied to wages instead. It offered again a 4 per cent across-the-board wage increase the first year, with an equal sum to be added the second. The offer also provided a cost-of-living increase should the index rise above the wage increase (based on a rate of \$2 for each .2 increase), and a provision for re-opening the contract for certain pension and holiday considerations. Under the contract that expired Oct. 18, 1959, Local 17's wage scale ranged from \$118 to \$155 a week. The union's original demand was for \$10 across the board the first year and another \$10 the second. Union officials reported that a discussion of the Association's revised offer at Local 17's Jan. 21 meeting indicated membership disapproval.

Kenneth Brown, president-elect of Amalgamated Lithographers of America, attended the local's Jan. 21 meeting and reported that the outcome of the San Francisco strike will have a direct bearing upon present contract negotiations in Boston, Philadelphia, Cincinnati, Detroit and Pittsburgh. He also indicated the International's continuing support of Local 17 in its current efforts.

On Jan. 22, an ALA Pacific Coast Conference was held at the Bellevue Hotel in San Francisco. Some 30 representatives of Western locals attended to discuss the nation's position in regard to upcoming contracts in the West and Honolulu.★



## Brightened His Day

Dear Sir:

How good can good become?

Scanning through a couple issues of your fine magazine this morning just made my day start happily! All perhaps because the people in your advertisements almost without exception are caught in good moods, and complementing it all, of course, is the quality of paper, and the printing.

I felt so uplifted at reading your excellent, artistic productions that I wanted to pen my reactions and share them with you; perhaps as a gesture of goodwill in return for the moments of pleasure and delight you provide through your magazine.

The exquisite artwork pages are indeed decorative masterpieces! Yours is truly a creative medium in this age of mass communications—a compliment to one who loves to read. Best wishes for an even more artful 1960!

O. E. Kangas,  
Chattanooga, Tenn.

## Meetings

**LTF Education, Annual and Research meetings,**  
Hotel Conrad Hilton, Chicago, March 21-24.

**Inter-Society Color Council, 29th annual meeting,** Philadelphia, April 11-12.

**Web-Offset Section, FIA, annual meeting,** Hotel Chase, St. Louis, April 20-22.

**Southern Graphic Arts Association, 39th annual convention,** Hotel Eola, Natchez, Miss., April 21-23.

**Lithographers and Printers National Association, annual convention,** Boca Raton Club, Boca Raton, Fla., April 25-28.

**National Association of Litho Clubs, 15th annual convention,** Hotel Statler, Boston, May 19-21.

**Technical Association of the Graphic Arts, 12th annual meeting,** Washington, D. C., June 20-22.

**International Association of Printing House Craftsmen, annual convention,** Hotel Biltmore, Atlanta, Aug. 7-11.

**Printing Industry of America, 74th annual convention,** Sheraton Park Hotel, Washington, D.C., Oct. 24-27.

**National Association of Photo-Lithographers, 28th annual convention and exhibit,** Hotel Conrad Hilton, Chicago, Oct. 5-8.

**National Metal Decorators Association, 26th annual convention,** Shoreham Hotel, Washington, D. C., Oct. 17-19.

## ML Very Helpful

Dear Sir:

I've been subscribing to MODERN LITHOGRAPHY for the last six or seven years, and find it very helpful to those in the trade.

Albert S. Panzarella,  
Brooklyn

## Waste Prevention

Dear Sir:

We are thinking of sending a series of letters to our employees on waste and its prevention. Our library, however, has very little on this subject, as relates to the printing industry.

We were wondering if you may have printed some articles on this subject. We are interested in things employees can do to cut down waste. For instance, proper care of equipment such as blankets, etc. avoidance of paper waste, oiling procedures, etc.

Louis A. Schochet,  
Cincinnati Lithographing Co.  
Cincinnati

Our files, too, are rather skimpy on this subject, but we have sent tear sheets of several articles that may be of some help.

—Editor.



## STABILIZED GUM ARABIC SOL. 14% Be.

Clean, crystal clear, Premium Gum starts right . . . with the finest lithographic grade gum arabic crystals available anywhere . . . and it stays right. No substitutes, no extenders, no fancy additives, no tricks or fillers . . . only selected, properly aged, 100% pure, water-white crystals. Add rigid production control, multiple bank filtration and laboratory know-how. Result: Full-bodied, transparent Premium Gum with constant viscosity . . . from the top of the drum to the very bottom. Use reliable Premium Gum on plates or press with complete confidence . . . because Premium's pure — 100% pure.

*Demand the label that says "100% Pure"*

Available in 1 gallon bottles, 30 gallon or 55 gallon drums (non-returnable). Special, double plastic lined drums insure longer shelf life and purity.

**FREE** Get your easy-flow, trouble-free, sturdy spigot with every drum of Premium Gum.

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43-20 43rd Avenue, Long Island City 4, N.Y.

Distributors in the following major areas:

Baltimore • Chicago • Cincinnati • Dallas • Dayton • Denver • Detroit • Houston • Kansas City • Los Angeles • Minneapolis • Milwaukee • Morris (N.Y.) • New York City • Pittsburgh • St. Louis • St. Paul • San Francisco • South Hadley (Mass.) • Toronto • Tulsa • Washington, D. C.



Map of the world, one of two new maps lithographed on special vinyl plastic by Albert J. Becker for Aero Service Corp., in Philadelphia.

## Litho Used for New Plastic Maps

LITHOGRAPHY was used last month for interesting three-dimensional maps of the United States and the world. Lithographed on a special durable plastic, the maps show the exact shape of the land, including mountains, valleys, etc. in detailed relief. The highest mountain peaks stand up nearly an inch on the maps.

Albert J. Becker Co., Southampton, Pa., produced the maps on .015 inch vinyl plastic on a 25 x 28" Harris-Seybold press. The maps are vacuum formed to show the terrain features.

### Only Problem—Static Electricity

In response to a question from ML, the offset firm reported that "the amount of distortion in vacuum forming of the maps is not great, and, except for positioning place names (where possible) so they are not located on mountain peaks, no special cartographic techniques were used. . . . As many as 3,000 sheets were produced an hour. Chief printing problem was the static generated by the plastic material."

Publisher of the maps is Aero Service Corp., Philadelphia. Both maps are 18 x 28" in size and are lithographed in eight colors.

Cost of the realistic maps is \$9.95 each. Larger, 40 x 64" counterparts of the 18 x 28" maps, published a few years ago by the firm, sells for \$47.50.

The detailed 50-State U.S. map shows 4,000 geographic names. It includes 2,000 cities and towns, 1,000 rivers

and lakes, 150 national parks and monuments, and more than 200 mountain ranges and peaks, and other features. Its scale is one inch equals 117 miles. A 14 x 26" map index slides out from the back of the map and locates all of the place names shown. Like the map, the index is lithographed on vinyl plastic.

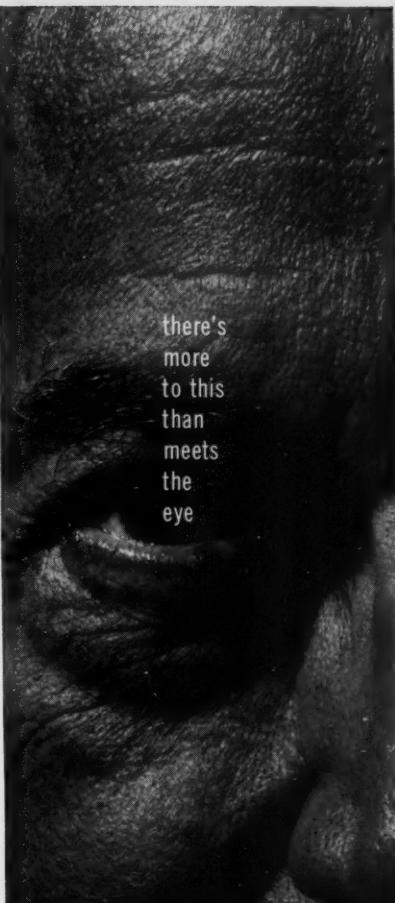
The companion World relief map features nearly 2,500 place names. This includes 1,200 cities and towns, 400 large bodies of water, 450 islands, mountain ranges and peaks, plus many other features. All place names appear on the pull-out map index. Map scale is 962 miles to the inch. It is in the same size and colors as the U.S. map. Both the U.S. and World maps have mahogany-colored plastic frames, ready for hanging.

### Awarded USIA Certificate

The relief maps have been awarded the U.S. Information Agency's certificate of international education materials. This certificate, recognized by UNESCO, entitles the maps to duty-free entry into 21 countries as accepted educational tools.

Aero Service Corp. describes itself as the world's largest air survey firm. It employs more than 900 engineers, geologists, geographers and technicians.

The relief maps are printed on a new durable vinyl plastic. The material is said to be so tough it can be walked on without damage. Both maps are plastic-coated to protect colors against dust, dirt or fingerprints.★



there's  
more  
to this  
than  
meets  
the  
eye



••• NEW...



## Kodalith Ortho, Type 3, emulsion now on stripping film

Type 3 emulsion means a remarkable improvement in your working flexibility and your results with stripping film. You have more exposure and development latitude to work with, for instance. You can see improved halftone dot hardness and line density, improved contrast, as well.

And you'll see that this emulsion is versatile enough to handle any kind of copy *regardless of contrast range in the copy. Beautiful results, line or halftone.*

But there's more to Type 3 than

meets the eye.

Sheet-after-sheet consistency, for instance. The unseen mark of quality borne by every Kodak product. Consistency that starts in Kodak research laboratories and never stops. Consistency that means you can produce uniform, *predictable* results today, tomorrow, any time you use this remarkable emulsion.

Become familiar with Type 3 on its many supports. Its good results are universal. You'll find Type 3 fits your techniques, eliminates guesswork,

seems to cooperate with you more than other emulsions do to give you more hits and fewer misses than you've ever had before.

*What base suits you best?* Transparent stripping which can be stripped wet or dry. Stable PB, regular or thick base. Plates, any size, .060 to  $\frac{3}{16}$ -inch thick. Acetate, regular or thin base. And these are only the beginning . . .

Want a demonstration? Write:

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Graphic Reproduction  
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→ EASTMAN KODAK COMPANY  
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TRADE MARK

# Farm Co-op Editors Save with Offset

By H. H. Slawson

Chicago Correspondent

FARMERS in the Old Bay State have lately found another reason to be proud of their monthly membership magazine, *Farm Bureau in Massachusetts*. After relying for years on letterpress production, the thrifty Yankees began looking around to see if they couldn't get production costs down. Offset was, of course, the answer and since 1947 *Farm Bureau in Massachusetts* has been produced by offset.

Now, 12 years later, another important step forward has been taken, this time to improve the quality of the product. Recently, the magazine began using coated paper stock. The immediate improvement in appearance has been drawing many approving letters. "They're speaking especially of the better pictures we're carrying" explained editor Carleton I. Pickett.

Farmer cooperatives have been issuing periodicals of some sort regularly since at least 1912, when the Iowa Fruit Growers Association of Des Moines, Ia., put out its first Newsletter.

According to the U. S. Dept. of Agriculture's Farmer Cooperative Service division, it's the oldest on record still being published. And, what's more, it is printed now by offset. The four-page folder, issued 16 times a year, has a circulation of 450 copies. Its primary purpose is to keep members informed on markets and the newest scientific developments in insecticides, fungicides and the like, of interest to fruit growers in the area around the state capital.

That these farm co-ops are mak-

ing considerable use of offset in their editorial ventures is indicated in a recent survey conducted by the Farmer Cooperative Service. Figures show a strong trend to offset as the favored printing medium.

## One-Third Use Litho

Among the 323 cooperative associations which supplied data for the government report, about a third print their publications by offset.

Total circulation of the 323 publications averaged 2.3 million copies per issue, ranging for individual periodicals from 200 to 266,000, and with 77 having less than 1,000 circulation.

Some 132 of the publications are magazine type with 20, 24, 36 or more pages. In second place, numerically, are 101 Newsletters of one to 8 pages, while newspapers, 47 in number, with up to 16 pages, are the third most common type of publication.

The others, as the report states, are apparently published whenever their sponsors "have something important to get to their members." Color is used to some extent by approximately 40 percent of the publications and

among the 25 with circulation of 15,000 or over, this color percentage rises to 52. Outside advertising is sold by 116 of the 323 publications.

## Offset for Newsletter

The latest co-op publication is a newsletter bearing the picturesque title "Hole-In-The-Dike," which was started in 1958 by the Farmers Cooperative Co. of Dike, Ia. It appears semi-monthly, has a circulation of 2,000 and is printed by offset.

Co-op magazines of commercial size and importance that are printed by offset are so numerous and on the whole commendable that selection of a typical example is not easy. *Farm Bureau in Massachusetts* is published by the statewide Farm Bureau Federation of Waltham, to promote organization interests including those of the affiliated Farm Bureau Cooperative Association. It is a monthly of 24 to 36 pages, 8 x 11" in size. Circulation is 6,000. Editor Pickett said his lithographer is the Dorrington Press of Waltham, Mass.

"We switched from letterpress in 1947," said Mr. Pickett, "to do a faster job for far less money. When we made the change we had bids from at least a dozen letterpress printers, so we had plenty of comparative figures to balance up against the Dorrington company's bid. The most persuasive factor in favor of offset was the ease with which we could use a large number

(Continued on Page 121)



# 4

## New Chemical Tools that Work for You!

**REPELZIT****SANS AQUA****ROBINOL****FILM-KLEEN**

**ANCHOR CHEMICAL CO., INC.**  
"SOLUTIONS FOR GRAPHIC ARTS PROBLEMS"

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**with Rx 45 & silicone**

- Print & fold wet sheets without ink smudges or set-off
- Release rubber, plastic and metal plates from molds smoothly

**Waterless hand cleaner****with hexachlorophene & lanolin**

- Really removes ink, carbon, dirt, grease, gums, etc.
- Avoid dermatitis—kill germs

**Cleaner of 1001 uses**

- Replaces deadly carbon tet
- Cleans film, glass, lino mats, space-bands, magazines, motors, etc.
- Non-inflammable—Non-damaging

**Replaces deadly benzol**

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Other Anchor Aerosols:  
Jet-Grease, Ex-Static,  
Anchor-It, Inkote

Clip to your letterhead

Send on money-back guarantee  
thru nearest dealer

REPELZIT \_\_\_\_\_ can(s) — \$3.50

\_\_\_\_\_ carton(s) of 12 — \$38.00

SANS AQUA \_\_\_\_\_ can(s) — \$2.25

\_\_\_\_\_ carton(s) of 12 — \$23.00

ROBINOL \_\_\_\_\_ can(s) — \$2.75

\_\_\_\_\_ carton(s) of 12 — \$27.50

FILM-KLEEN \_\_\_\_\_ can(s) — \$2.00

\_\_\_\_\_ carton(s) of 12 — \$20.00

Please tell me more about

Prices slightly higher  
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## What you should know about

# Depreciation Allowances

### How 20 percent allowance applies to new equipment, plant expansion, etc., and how to figure deductions

By Joseph Arkin

C.P.A.

**A** NEW rule allowing a special 20 percent allowance for depreciation has been made part of the Technical Amendments Act of 1958.

All printers who have made purchases of furniture and other equipment after Dec. 31, 1957 for use in their business should take note of this new provision. It offers an important means of saving tax-dollars.

Briefly speaking, this is how the new rules work: A printer or lithographer who purchases fixed assets which by law are classified as personal property, not as real property, can deduct a *one-time* depreciation allowance of 20 percent up to \$10,000 of cost price of equipment for items having a useful life of at least six years. If a joint return is filed, even though the wife does not own the property, 20 percent of \$20,000 can be taken. It does not matter if the equipment is new or used, nor what time during the year it was purchased. To best understand how the new 20 percent allowance applies, a set of typical questions and answers is offered below:

*Q: I bought new equipment for \$2,000, having a useful life of 10 years, in the early part of January, 1958. I want to use the double declining-balance method and want to take advantage of the new allowance. What is the amount of my deduction and how is it computed?*

*A: Your depreciation deduction for 1958 is \$720. First you take 20 percent of \$2,000 (\$400). Then subtract*

\$400 from the \$2,000 cost to get the adjusted base for computing the regular depreciation for the year. A 10 year useful life means the use of 10 percent as annual rate, but when use is made of the double-declining method, we double up on the rate and use 20 percent. Thus 20 percent of the adjusted base of \$1,600 is \$320. The total of \$400 (special allowance) and \$320 (regular depreciation) is \$720.

*Q: I bought some used furniture for the office. Does this qualify?*

*A: Yes, the equipment can be either new or used.*

*Q: I added a wing to our building. Does this building addition qualify for the new 20 percent allowance?*

*A: No, real estate does not qualify.*

*Q: I received a gift of furniture and other useful items from a relative. Do these items qualify?*

*A: No, items acquired by gift or by inheritance do not qualify.*

*Q: How do I inform the government that I want to avail myself of this new allowance?*

*A: You must make an election.*

*Q: How does one make such an election?*

*A: The election to take the new 20 percent allowance must be made by a taxpayer within the time prescribed for filing the tax return, including any extensions granted, for such year. The taxpayer must attach a statement to the tax return indicating that the election is being made and setting forth the following information:*

- (a) Description of equipment or other personal property.
- (b) Date property was acquired.
- (c) Estimated useful life at date of acquisition.
- (d) How and from whom the property was acquired.
- (e) Total cost of each item of property with respect to which election is being made.
- (f) Portion of cost of property selected.

*Q: Does this apply to any capital items purchased during the year?*

*A: No, it applies only to those assets (other than real estate) used in the taxpayer's trade or business or in production of income.*

*Q: Can I deduct every type of personal property for new allowance?*

*A: An asset, to qualify, must have a useful life of at least six years.*

*Q: What if I acquire the new items from a relative?*

*A: There are regulations to curb abuses with respect to purchases made from certain closely related persons. Ordinarily, if the transaction is made at "normal" prices, purchases made from relatives who are regular dealers of such products will be allowed.*

*Q: I haven't bought anything recently. Can I use this new allowance in the future?*

*A: Yes, you can get an allowance for items purchased in future years, but the limits are \$10,000 worth of equipment for one taxpayer, \$20,000 worth of equipment in case of a husband or wife filing a joint return.*

*Q: Is the limit cumulative? Can I carry over any unused portion of \$2,000 special depreciation allowance not used?*

*A: No, the limitation is for any one taxable year. You can get the special 20 percent allowance each year until the law is amended or repealed.*

*Q: My establishment is incorporated. Make any difference?*

*A: No, corporations can use the new allowance, but the limit is \$2,000, based on purchases of qualifying assets costing \$10,000. This rule and limitation also applies to those corporations which have elected to be taxed as partnerships.★*

# Don't Kid Yourself On Mark-Up!

By *Otis E. Wells*  
President, Western Lithograph Co.

PROBABLY more words have been written and spoken about the need to know your costs—your own costs—and to those costs to add a mark-up that will enable you to earn a satisfactory profit, than most any subject pertinent to our industry.

We all seem to have heads of stone, because the pitifully low profits of our industry clearly indicate we are not heeding the words of wisdom that are told over and over again about costs and profits.

But we can't give up. We must hope and pray that, as the old saying goes, "Little drops of water wear away great stones" and that by continuing to preach the gospel of costs and profits, we will get through our stone heads how important profits are to the success of our business.

In this fight which we are constantly engaged in with competition—folks not knowing their costs, and worst of all, not realizing that the only real reason they are in business is to make a profit—the answer, in my opinion, lies wholly and completely with the president, the top man in any lithographing company. Whether it's a two-man shop or a 200-man plant, there is one person who is the top boss. He, and he alone, is responsible for a sound cost and pricing policy that will enable the company to make a legitimate profit.

## *Don't Blame Estimators, Salesmen*

Don't blame your estimators. Don't blame your salesmen who moan, groan and cry for a lower price. Don't blame your competition who don't know their costs, much less how to make a profit.

You, the top boss, you are the person responsible. It is your job—your primary function as top boss—to see to it that you have a sound, adequate cost system, that you know your own costs, and that you place a mark-up on those costs that will make you a legitimate profit.

It has to be a cost and pricing policy that is used day in and day out. You can't do one thing today and something else tomorrow. You can't be swayed into changing your policy because that dumb so-and-so down the street is on a particular deal. You can't let competition name

From an address delivered at the 27th annual convention of the NAPL, Kansas City.

your selling price. If you do, you are in serious profit trouble. You have a product and service to sell—not to give away.

If you can't efficiently produce at a reasonable price and sell at a profit, then you have failed to achieve the basic reason you are in business—to make a profit. If you can't make a fair profit, then the sooner you go broke or get out of the business, the better off you and the industry will be.

Now let's talk about mark-ups assuming that you do know your costs. A sound profit policy comes from two distinct things—accurate costs and adequate mark-up on cost.

Before we continue, I want to give you a formula to use for mark-up on cost. Let's think for a moment about some simple arithmetic, something we all know but too many times forget when we apply profit mark-up to cost.

## *Difference in Percentage*

There is a big difference in the profit percentage on sales and the percent or mark-up on cost. Since most of us figure and consider our profits as a certain percent of sales, we must make sure the mark-up we apply to cost will give us the profit percent on sales that we desire.

If you mark up your costs 100 percent, you will make only 50 percent on your sales figure.

Let's take a look at the figures—

66 2/3%	on cost	will make only	40%	on sales
33 1/3%	on cost	will make only	25%	on sales
25%	on cost	will make only	20%	on sales
17.65%	on cost	will make only	15%	on sales
11.11%	on cost	will make only	10%	on sales
10%	on cost	will make only	9%	on sales

It's simple arithmetic, but there is a big difference in the percent results on sales. Note that a 25 percent mark-up on cost gives you only a 20 percent profit on the sale price. That's a 20 percent difference. Don't forget, when you are applying mark-up to cost, you must consider the final result in the percent it will give you on sales.

Here's a suggestion you may want to consider as a mark-up pricing policy to help you make a desirable profit:

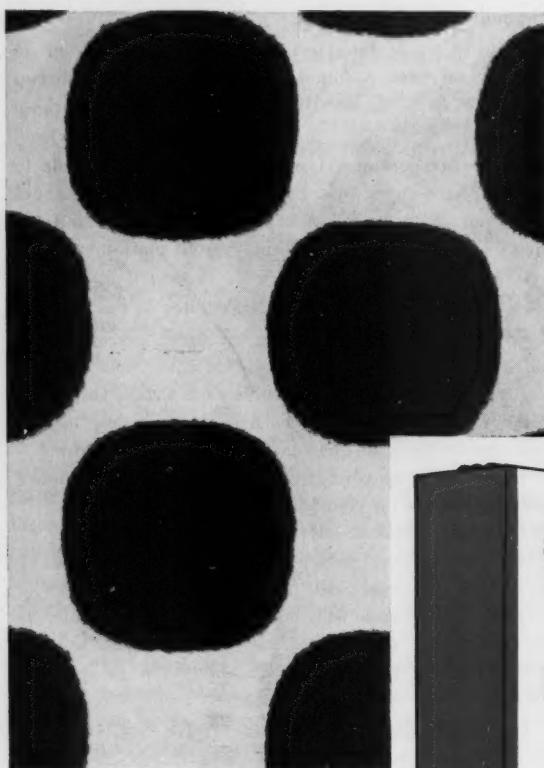
MARK-UP ON TOTAL COST*	PAY SALES COMMISSION	YOUR PROFIT AFTER SALES COMMISSION
25% .....	10% .....	10%
20% .....	8% .....	8.6%
15% .....	5% .....	8%
10% .....	2 1/2% .....	6.6%
5% .....	2% .....	2.7%

\* Total cost or all-inclusive cost, but do not include in your all-inclusive costs the actual sales commission paid to salesmen.

Sales commission paid to salesmen is a variable item. It should vary in some relation to the profit the company makes on the order. If the company prices to take a

(Continued on Page 117)

**In ten minutes you can prove...  
HUNT ENGRAV-O-GRAPH will  
give you *sharper and cleaner*  
halftones and tints**



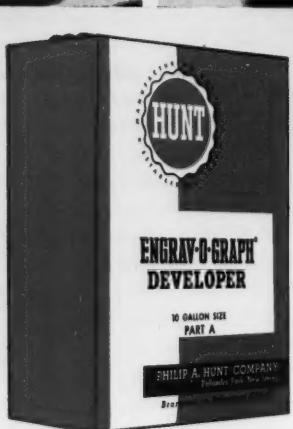
**Engrav-O-Graph Developed Negative**

Unretouched photomicrographs (magnified 150 times) of two halves of a test film exposed through a 133 line screen



**"X" Brand Developed Negative**

of a standard gray scale. Both halves were developed for 2½ minutes at 68°F. Note the complete absence of halation in the film developed in Engrav-O-Graph.



#### Make this simple test

- 1 Order a carton of Engrav-O-Graph, on the money-back guarantee. Make up a solution according to directions.
- 2 On your next camera job, shoot an extra negative for your test.
- 3 Cut the negative in half, notch for identification, then run one half through your regular developer, one half through the Engrav-O-Graph

developer. Keep time and temperature the same for both developers.

4 Fix and dry both test strips the same way. Then rejoin the negatives on your light table and examine the dots in identical areas with the most powerful magnifying glass you have. The microphotographs above show you what to look for. Notice that the shadow dots are harder, the highlight dots are cleaner and sharper in the Engrav-O-Graph developed portion of the negative.

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207 Queens Quay West, Toronto



**More news on local celebrations of**

## PRINTING WEEK

PRINTING WEEK programs showed a bit more diversification this year than in many past observances, but publicity for the various programs reached ML much later than in former years, making necessary the following followup reports on some of the cities.

Single most important comment in these reports, perhaps, was the statement from the Los Angeles committee that it has changed its emphasis from the institutional promotion to a real program aimed at the people who count—printing buyers.

"The entire event is geared to one purpose," according to the L.A. committee, "making printing buyers and potential buyers realize that in the field of advertising and communications, where all expenditures must be carefully scrutinized, printing is irrefutably the number one means of communication."

One part of the program was aimed at the general public, to urge greater use of the graphic arts in everything from business cards to personal stationery. The other was aimed at decision-making individuals and groups, to "educate them to the economic advantages of using printing to communicate ideas and sell products."

Following are reports from other cities:

### **Houston**

Miss Susan Jenkins, 18, was chosen Miss Printing Week. She is the daughter of Mr. and Mrs. D. B. Jenkins, of Washington, D. C., and is a student at the University of Houston. She was presented at the banquet Jan. 21.

Robert Chester represented the



Baltimore's Queen with old hand press.

Litho Club on the promotion committee for PW.

### **Philadelphia**

J. Wallace Scott, Jr., president of Allen, Lane & Scott, was selected as the 1960 "Man of the Year" in connection with the city's observance of Printing Week. The award is sponsored by the Hamilton Paper Co., Miquon, Pa.

Mr. Scott, a member of the graphic arts industry since 1933, was cited for having made "significant contributions and providing proven leadership for the industry."

Nationally, he has served as director of Printing Industry of America. He also served as chairman of a special committee organized to develop standard lighting specifications for the printing industry.

One of the big features of the local celebration — the Delaware Valley Graphic Arts Exhibit — was a big success at the Hall of Flags in the Sheraton Hotel. On view were 700 of the

best printed and lithographed pieces produced in the area in 1959.

On the week's program were a ladies luncheon and fashion show, a students' day forum, and, of course, the "Man of the Year" luncheon, at which Drew Pearson, radio commentator and columnist, was featured speaker.

Visitors to the graphic arts exhibit were given keys to try in a series of "treasure chests." Those with the right keys found themselves the winners of table radios.

At Edward Stern & Co., Public Printer Blattenberger was guest of honor at a cocktail party on Jan. 21. A window display of Stern printed pieces was featured at the Reading Terminal. Mr. Blattenberger was formerly associated with Stern as a senior vice president.

### **Brooklyn**

A colorful display of the kind of advertising which sold goods and services to America a century and more ago was on exhibition during PW in the main office of the century-old Dime Savings Bank of Brooklyn. Collected from the Library of Congress from material sent in for copyright between 1837 and 1876, and assembled and loaned to the bank by the Smithsonian Institution for its first showing in New York City, the exhibit was to remain in place through Feb. 11.

The material, much of it lithographed in color, was selected by Dr. Edgar Breitenbach, of the Library of Congress, as representing a cross-section of 19th century advertising art and picturing the development of American salesmanship.

The display contained 73 items advertising everything from boot pullers to portable steam engines, sawmills and a self-propelling hobby horse.

Of particular interest is a lithograph extolling the virtues of "Old Sachem Bitters and Wigwam Tonic," which was produced in 1859, the same year The Dime Savings Bank of Brooklyn was established.

### **St. Louis**

St. Louis Club of Printing House Craftsmen was in charge of the four-  
(Continued on Page 117)

# RECORD GOTHIC

Ludlow's new RECORD GOTHIC family of typefaces has been designed for contemporary needs—extremely open and modern in character, clean-cut and highly readable. The wide range of sizes and weights permits great flexibility in typographic styling, offering the designer and printer excellent color and texture control. Crisp, legible reproduction in any process is assured. Record Gothic is one more example of Ludlow's continuing policy of supplying attractive and workable typefaces for freshness and variety. Write for specimen sheets . . . and specify Ludlow typefaces on your next job.

# LUDLOW

## Record Gothic

Available in sizes 6 to 48 point

## Record Gothic Medium-Extended

Available in sizes 6 to 48 point

## Record Gothic Extended

Available in sizes 6 to 48 point

## Record Gothic Extended Italic

Available in sizes 14, 30, 36, 48 point

## Record Gothic Condensed

Available in sizes 6 to 72 point

## Record Gothic Condensed Italic

Available in sizes 12 to 48 point

## Record Gothic Extra Condensed

Available in sizes 12 to 48 point

## Record Gothic Bold

Available in sizes 12 to 72 point

## Record Gothic Bold Italic

Available in sizes 12 to 48 point

## Record Gothic Bold Extended

Available in sizes 6 to 48 point

## Record Gothic Bold Ext. Italic

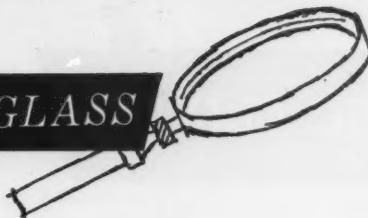
Available in sizes 14 to 48 point

Additional sizes and additional series are under way

## LUDLOW TYPOGRAPH COMPANY

2032 Clybourn Avenue, Chicago 14, Illinois

## THROUGH the GLASS



EVERY Printing Week, little known facts about that fabulous fellow, Ben Franklin, come to light in promotional literature, talks, etc. Our favorite item of Frankliniana for this year was offered on a New York television program on his birthday last month (first day of Printing Week). While Franklin didn't care much for cold baths (the temperature change was too shocking) he did sit around naked in his room every morning for an hour or so, reading, writing or just meditating. He said he found the practice quite invigorating. No telling what the landlady thought.

*An important meeting—actually three meetings — not directly connected with Printing Week was the three-way phone conference of the National Association of Litho Clubs, with regional meetings held simultaneously in Hartford, Oshkosh and Tulsa. (See page 37) Some delegates expressed the hope that future mid-year meetings would not be held during PW, so as not to interfere with local programs.*

At least at the Eastern meeting, there was a feeling . . . almost unanimous . . . that a two-day mid-year meeting really isn't necessary to handle the business that comes before the groups. In the past, the meeting has been for one day in one city. Two years ago, the three-way plan was inaugurated, still for only one day. Last year, Friday evening was added to the schedule, and this year, Friday afternoon as well. Shortening the meeting might be a hardship to the western meetings, however, because of the time differential, in connection with planning for the phone conference.

Next NALC function is the annual convention in Boston, May 19-21.

are made in the name of the sponsoring printer.

Participating members of the Education Council may sponsor a school at no cost; non-members are charged \$17.50 a year, with special prices available for group sponsorship.

According to Loren Carter, director of training, R. R. Donnelley and Sons Co., chairman of the Council's vocational guidance committee, "numerous studies of high school senior student choices of careers have shown that in many schools, *none* of the students have chosen the printing industry. Unless our industry takes no action to reverse this trend, we shall be in even more serious difficulties in terms of obtaining both the quality and quantity of new employees we need in our plants and offices. SCIP is a big answer to this problem."

Further information is available from the Council at 5728 Connecticut Ave., N.W., Washington 15, D.C.



## PHOTOGRAPHIC CLINIC

By **Herbert P. Paschel**  
Graphic Arts Consultant



# What Is Meaning of Land Experiments?

### **Meaning of Land Experiments**

*Q: Do the Land experiments in color disprove the tri-color theory?*

C.E.B., CAMDEN, N. J.

A: The tri-color theory of vision postulates that the human eye has three separate receptor systems—one sensitive to red wavelengths, one to green and one to blue. So far the theory has not been substantiated by definite physiological evidence. The theory, however, does explain normal human vision, abnormal vision and color matching. In fact, all of our color reproduction systems, color printing, color photography and color TV are based on the assumption that the eye possesses red, green and blue receptors. Obviously the assumptions are not at variance with our everyday practical experiences.

Dr. Land's experiments with an abridged system certainly indicate that color sensations can be stimulated in other ways than tri-color mixture. But experience to date fails to invalidate the tri-color theory. Bear in mind also that the presently accepted theory is applicable to color mixture by transmitted and reflected light both additively and subtractively.

The Land experiments have so far been limited to a specialized additive projection system.

### **Paper for Veloxes**

*Q: When making screened prints (Veloxes) can various grades of*

*It is impossible for Mr. Paschel to give personal replies by mail, but all questions will be answered in this column as soon after receipt as possible. The columnist also is available to the trade as a consultant for more complex litho problems.*

*paper be used to get good results from difficult negatives?*

J.B.K., ALBANY, N. Y.

A: Theoretically it should make very little difference what paper you use so long as you achieve a sharply defined dot of high density and maximum contrast between the dots and the white spaces. Since the screened print is only a means to an end, its visual appearance is of no significance. With soft papers you may get what appears to be a better print, but the dots may be gray and the white spaces veiled. This would be extremely troublesome when making the line pickup (rephotographing), with consequent distortion of the tone values. Although some flexibility is possible, you can not use various grades of paper for making prints from halftones in the same manner as you can in making continuous tone prints.

You are working with two strikes against you if you are trying to cor-

rect for bad negatives when making the contact prints. Instead, improve your camera work and make your contacts on a single grade of paper.

### **Reuse Focusing Scale**

*Q: I have a camera with a focusing scale and am planning to buy a new lens. Must I get a new focusing scale?*

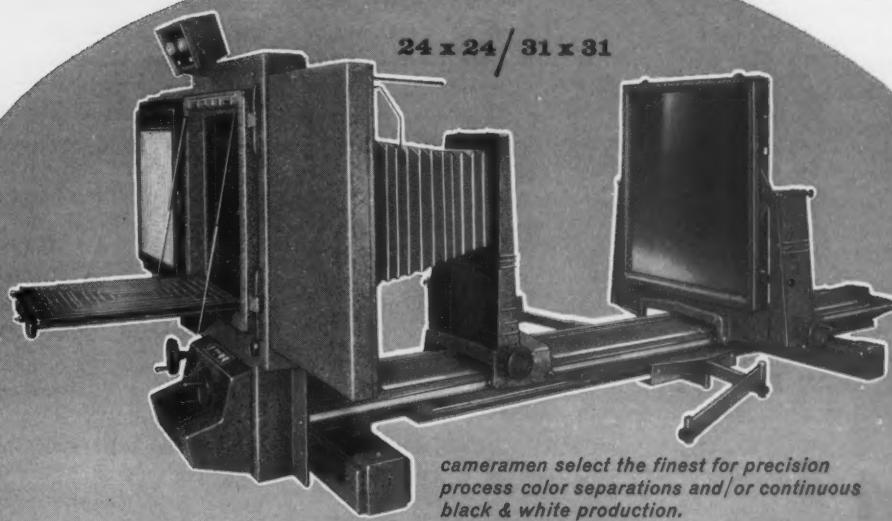
K.E.M., PHILADELPHIA

A: That depends on the type of scale you have on your camera. Focusing scales are of three types. The simplest is the linear scale which measures the physical distances of the camera components. This may also be accomplished by means of vernier counters. Either form works in conjunction with a focusing chart calibrated to the lens. Such systems can be used with any lens provided a focusing chart has been computed.

Another type of fixed scale has slanted lines which are adaptable to a number of lenses within a limited focal length range. For example, such a scale may embrace focal lengths from 18 to 20 inches. In this case the indicators on the lensboard and copyboard carriages are adjusted to correspond to the focal length of the lens in use. Cameras with these two systems do not need new scales—merely a new chart or an adjustment of the indicator. The third type of scale is calibrated for a specific lens and is therefore useless with a lens of different focal length.

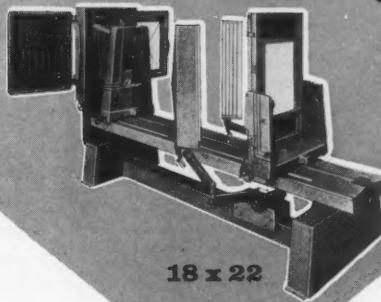
There is, however, a very slim chance that you could get a new lens

24 x 24 / 31 x 31



cameramen select the finest for precision  
process color separations and/or continuous  
black & white production.

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of the exact focal length of the old one. If you have a record of the true focal of your old lens, submit this to the manufacturer of the lens you propose to buy. He might just have a lens in stock with the required focal length. Then you would make a slight adjustment to compensate for a possible difference in nodal position.

**Feasibility of Proof Press?**

*Q: Would you be so kind as to give your opinion on the feasibility*

*of a proof press in our operation? We are a trade shop supplying color separation positives (screen) and/or press plates. We are undecided as to whether to purchase a regular press or a proof press. Another subject I would like to know more about is the kind of inks to use for proving.*

W.R., HARTFORD

A: My opinions regarding proving were pretty well summarized in an article in the September 1958 issue of *ML*. I can add only the following. The

only direct evidence that you can provide for yourself that the films and plates are satisfactory is, of course, a paper and ink proof. And, to be perfectly valid, this proof must be made under conditions which simulate the operating conditions of your customer. In the ultimate sense, this would mean a regular production press . . . preferably the press on which the job is to be run. Since this is not possible for a trade shop to achieve, all other alternatives are to some degree approximations.

An automatic proof press which has reproduction characteristics as close as possible to a regular offset press would be a good solution to your problem. Proving on such presses is accomplished in much less time than on a regular press. And for proving small jobs you could use small plates.

The remaining alternatives — hand operated press, photographic and related proving methods, etc., are compromises which could prove troublesome for you since they do not duplicate actual press conditions.

As to process inks, there again you are faced with some problems. Your work must be geared to the inks in use by the customer. It would not help you one bit to use inks of superior gamut in proving only to have the customer use an inferior set on the run. However, with a little time and effort on your part to educate your customers you might eventually get them to standardize on the same set of inks. Until then you will have to be guided in your choice of proving inks, by what your customer is using.



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1841 BROADWAY, NEW YORK 23, N. Y.

**SUPREME**

**Book Review**

PRINTING INK TECHNOLOGY, E. A. Apps. The Chemical Publishing Co., Inc., 212 Fifth Ave., New York 10, 1959, 516 pp., \$19.50.

There can be no question that technological progress in printing inks has offered significant advantages to the printer. Inks specifically geared to the requirements of the paper, press, press speed, process etc., are accepted as commonplace today. Aside from improved working characteristics, countless inks are

(Continued on Page 123)



color offset reproduction

*Bisque Figurines*, from a color transparency by Paul W. Cloud



# Lithographic Papers

LUSTERKOTE  
OFFSET ENAMEL  
CAMEO BRILLIANT  
OVERPRINT LABEL C1S  
FOTOLITH ENAMEL  
CASCO ENAMEL  
PRINTONE LITHO PLATE  
SILKOTE OFFSET

This paper is Warren's Silkote Offset • Basis 25 x 38-70 (140M)

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 who sell and endorse  
 Warren's Standard Printing Papers

ALBANY, N. Y.	Hudson Valley Paper Company
ALLENTOWN, PA.	Lehigh Valley Paper Corporation
ATLANTA, GA.	Sloan Paper Company
BALTIMORE, MD.	The Barton, Dyer & Koch Paper Co.
BIRMINGHAM, ALA.	Stanford Paper Company
BOISE, IDAHO	Sloan Paper Company
BOSTON, MASS.	Zellerbach Paper Company
BUFFALO, N. Y.	Carter Rice Storrs & Bement Inc.
CHAMPAIGN, ILL.	The Century Paper Co., Inc.
CHARLOTTE, N. C.	Cook-Vivian-Lindenmeyer Co., Inc.
CHATTANOOGA, TENN.	The Alling & Cory Company
CHICAGO, ILL.	Franklin-Cowan Paper Company
CINCINNATI, OHIO	Crescent Paper Company
CLEVELAND, OHIO	Caskie Paper Company, Inc.
COLUMBUS, OHIO	Virginia Paper Company
CONCORD, N. H.	Southern Paper Company
DALLAS, TEXAS	Sloan Paper Company
DAYTON, OHIO	Chicago Paper Company
DENVER, COLO.	McIntosh Paper Company
DES MOINES, IOWA	Carpenter Paper Company
DETROIT, MICH.	Western Newspaper Union
EUGENE, ORE.	Newhouse Paper Company
FORT WORTH, TEXAS	Seaman-Patrick Paper Company
FRESNO, CAL.	Chope-Stevens Paper Company
GRAND RAPIDS, MICH.	Zellerbach Paper Company
GREAT FALLS, MONT.	Olmsted-Kirk Company
HARRISBURG, PA.	The Cincinnati Cordage & Paper Co.
HARTFORD, CONN.	C. M. Rice Paper Company
HOUSTON, TEXAS	The Diem & Wing Paper Company
INDIANAPOLIS, IND.	The Petrequin Paper Company
JACKSON, MISS.	The Alling & Cory Company
JACKSONVILLE, FLA.	The Cincinnati Cordage & Paper Co.
KANSAS CITY, MO.	Olmsted-Kirk Company
KNOXVILLE, TENN.	The Diem & Wing Paper Company
LANSING, MICH.	Carter Rice Storrs & Bement Inc.
LITTLE ROCK, ARK.	L. S. Bosworth Company
LOS ANGELES, CAL.	Olmsted-Kirk Company of Houston
LOUISVILLE, KY.	Crescent Paper Company
LYNCHBURG, VA.	Townsend Paper Company
MEMPHIS, TENN.	Virginia Paper Company
MILWAUKEE, WIS.	
MINNEAPOLIS, MINN.	Tobey Fine Papers of Kansas City, Inc.
MONTGOMERY, ALA.	Southern Paper Company
NASHVILLE, TENN.	The Weissinger Paper Company
NEWARK, N. J.	Western Newspaper Union
NEW HAVEN, CONN.	Arkansas Paper Company
NEW ORLEANS, LA.	Zellerbach Paper Company
NEW YORK CITY	Louisville Paper & Mfg. Co., Inc.
	Caskie Paper Company, Inc.
OAKLAND, CAL.	Southland Paper Company
OKLAHOMA CITY, OKLA.	Nackie Paper Company
OMAHA, NEB.	The John Leslie Paper Company
PHILADELPHIA, PA.	Newhouse Paper Company
PHOENIX, ARIZ.	Werner Paper Company
PITTSBURGH, PA.	Clements Paper Company
PORTLAND, MAINE	Henry Lindenmeyer & Sons
PORTLAND, ORE.	Carter Rice Storrs & Bement Inc.
PROVIDENCE, R. I.	Henry Lindenmeyer & Sons
RENO, NEV.	Alco Paper Company, Inc.
RICHMOND, VA.	Henry Lindenmeyer & Sons
ROCHESTER, N. Y.	Miller & Wright Paper Co.
SACRAMENTO, CAL.	The Canfield Paper Company
ST. LOUIS, MO.	Marquardt & Company, Inc.
ST. PAUL, MINN.	Schlosser Paper Corporation
SALT LAKE CITY, UTAH	Zellerbach Paper Company
SAN ANTONIO, TEXAS	Field Paper Company
SAN DIEGO, CAL.	D. L. Ward Company
SAN FRANCISCO, CAL.	The J. L. N. Smythe Company
SAN JOSE, CAL.	Schuylkill Paper Company
SEATTLE, WASH.	Zellerbach Paper Company
SHREVEPORT, LA.	The Alling & Cory Company
SPokane, WASH.	C. M. Rice Paper Company
SPRINGFIELD, MASS.	Zellerbach Paper Company
STOCKTON, CAL.	Narragansett Paper Co., Inc.
SYRACUSE, N. Y.	Carter Rice Storrs & Bement Inc.
TACOMA, WASH.	Zellerbach Paper Company
TOLEDO, OHIO	B. W. Wilson Paper Company
TROY, N. Y.	The Alling & Cory Company
TULSA, OKLA.	Zellerbach Paper Company
WACO, TEXAS	Zellerbach Paper Company
WASHINGTON, D. C.	The Commerce Paper Company
WICHITA, KAN.	Troy Paper Corporation
EXPORT AND FOREIGN	
TORONTO, CANADA	Buntin Reid Paper Co., Ltd.
NEW YORK CITY (Export)	Moller & Rothe, Inc.
20 countries in Latin America: West Indies, Philippine Islands, Hong Kong, South Africa.	20 countries in Latin America: West Indies, Philippine Islands, Hong Kong, South Africa.
NEW YORK CITY (Export)	Muller and Phipps (Asia) Ltd.
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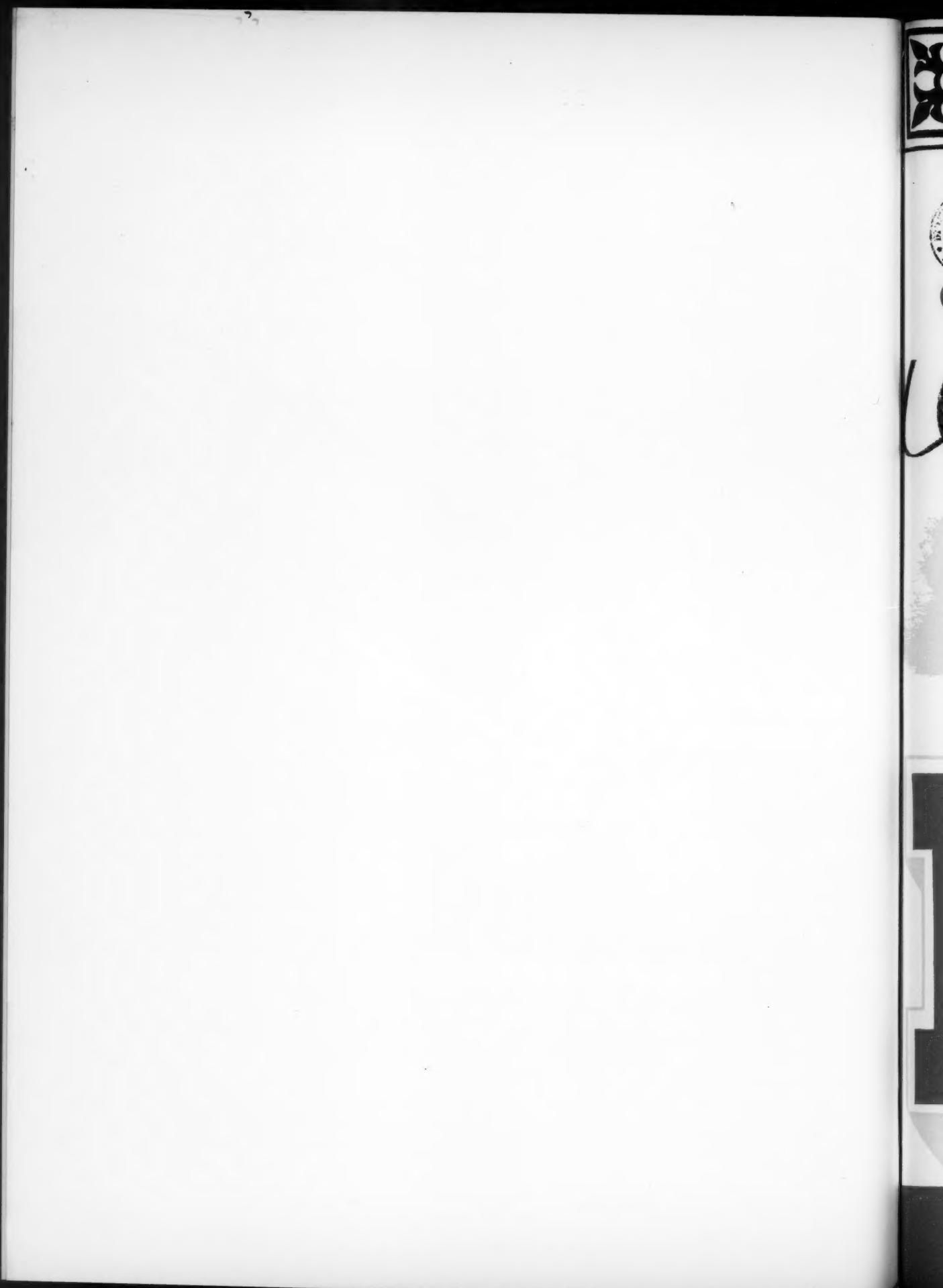
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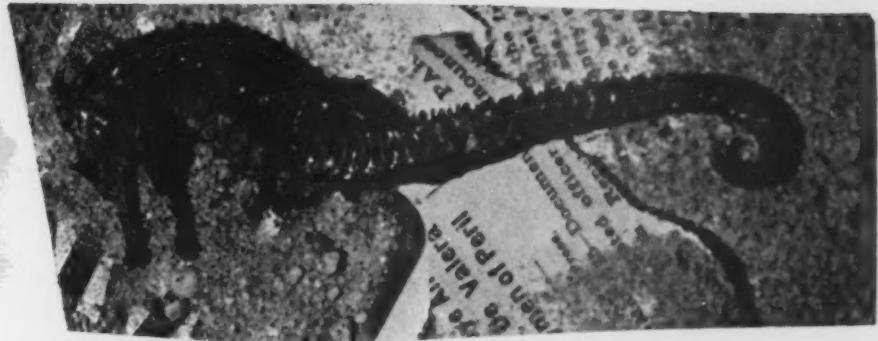
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## TECHNICAL SECTION



# Some Tips on Camera-Back Masking

By *Edward Glauder*  
Part 1

CAMERA-BACK masking is a method that is used mainly for reflection copy. As described in Kodak's & Sheet No. 101, the masks are made directly from the copy and before the separations. They are exposed on the camera-back through suitable filters. After being processed, the masks are returned to their original position on the camera back over a piece of panchromatic film. The color separations are then exposed onto this film through the mask. The separation is thus color-corrected at the same time that it is exposed.

As can be seen, this procedure with negative masks is different from the one followed in using the more common positive masks. A positive mask is made from the continuous-tone separation, registered to it, and the final screened positive is exposed through the pair.

The maximum density in a final camera-back masked separation is lower than in a separation made for use with a post-mask. The reason is that separations for positive masks have to be processed to a higher density to keep the secondary tones—that is, the reds, blues and greens—on the straight line portion of the tone reproduction curve.

Reprinted from Photographic Department Memo No. 1, Lithographic Technical Foundation Research Progress.

The lower maximum density of camera-back separations has advantages. It is especially helpful in plants using glass screens and low illumination-plants where the time required to make screened positives in the camera becomes excessively long. Once you establish the correct exposure and development times for a set of camera-back masks that have the correct contrast, these times become more or less standard for similar jobs. By "similar jobs" we mean jobs that call for the same paper, the same inks and use copy that includes about the same percentage of white.

Hold lens flare to a minimum as much as possible by keeping the lens clean. Lens flare can vary, however, according to the amount of white in the copy. If the copy includes a large area of white, the amount of lens flare will increase. This will reduce the contrast of the separation images especially in the shadows and call for masks having lower contrast.

Because of this, mask percentages must be calculated from the effective contrast of the image at the camera-back and not from the contrast range of the original.

### General Requirements

Place the copy, color patches and gray scale on the copy board. Cover any white margins on the copy with black paper to minimize flare. Position and focus the camera.

### Register

An important requirement for success with the camera-back masking system is accurate register between the mask and the color separation that is exposed through it. One way to do this is to tape a register pin bar on the back of the camera. You then pre-punch all films used for masks and separations to fit the pins on the register bar. If you work with large size films (bigger than  $8 \times 10''$ ), a similar pin system should be used with the pins placed as far apart as possible on the long edge of the film.

Another method of assuring register is the use of a Kodak Register Frame on the screen holding mechanism or plate bars. Use a piece of ground glass in the frame for focusing.

This ground glass is also used to check the register of masks with their separation images. It's a good idea to make such a check because filters that are not even in thickness or buckled, or lenses that are not fully corrected, may cause misregister. Special photo-mechanical filters that may minimize the filter problems are available.

### Testing Filters and Lenses

To test your filters, make a film negative of the copy, without a filter. Place it on the register frame pins. Open the lens aperture and turn on

the arcs. Put the filter in the lens barrel. Now look through the film negative at the image that is projected to the ground glass. Revolve the filter in the lens. If this rotation shifts the image, the filter should not be used for color separation work.

The lens itself can also cause register trouble. Occasionally, a lens of even the best manufacture will produce different size images with different filters. Here's an easy test for this.

Draw a clean, very thin line with India ink on white paper. Make a reduced negative of this line so that its width is as thin as possible, somewhere around .001 inch. On this negative and over the clear line, tape your red, green, and blue filters with edges butting.

Mount this assembly in the camera positive holder. Focus the line a foot or so off center on the ground glass. Then examine the color junctions. If they are shifted so that you can't lay a straight edge along them, the lens is faulty. If the fault is excessive you won't be able to make a satisfactory set of separations or masks and the lens should be corrected or replaced.

#### Film Placement

If you make the film masks and separations on a vacuum back, first prepare a spacer film. This should be a piece of the same film that will be used for the separation negatives or a film of the same size and thickness. Expose it to white light and process it so that it is black. Then punch it and place it on the register bar pins.

All films used for masks must be punched and placed on top of this spacer film before exposure. Here is the reason: When you replace the finished mask on the camera-back on top of the film for the color separation, you want it to be in exactly the same place as it was when it was exposed.

You'll also need a frame or a cut-out piece of film to hold the top and side edges of the films right against the vacuum back. The vacuum will hold the bottom film but not the film placed on top of it (if it is the same

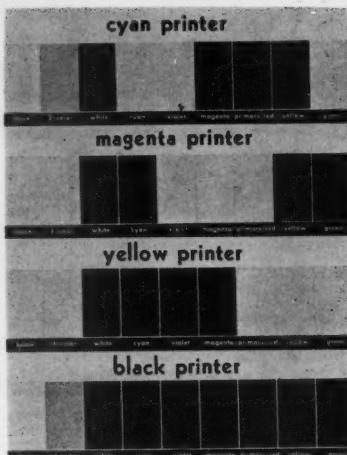


Figure 1

size or smaller than the bottom film). So, cut a frame out of acetate or blackened film. Make it at least  $1\frac{1}{2}$ " larger than the mask film all around. Cut out the center of this sheet about  $\frac{1}{2}$ " smaller on all sides than the mask film. When this frame is placed over the mask film and the spacer film, or over the finished mask and the film for the separation negative, the vacuum will hold all the films flat and tight against the camera-back.

The masks must be made unsharp. You can do this by making them with mask film that has no anti-halation backing, exposed with the back toward the lens. Another way is to use anti-halation backed mask film with the emulsion toward the lens. As you expose it, blur the image by moving a piece of clear cellophane in front of the lens.

#### Color Patches

One of the most important requirements for top quality color separations is the use of the proper color patches. These patches should be printed in your own plant using the ink hues and densities and the paper stocks that will be used for the job.

The black control patch should consist of solids of the three colors plus an overprint of the amount of black that will be used in the final proof. You should have samples of all types of combinations of different inks on the coated and offset papers that are used in your plant. Even the tint or color of the paper itself is important.

It should be identical with the paper that will be used when the job is printed.

Color patches are used to see if the masks have done their job of color correcting the separation. Figure 1 shows a set of color patches as they would appear on an ideal set of separations. In checking the patches, follow the "rule of three." To do this, temporarily disregard the black, white, and the three-color patches. Of the remaining six single-color patches, three should be equally clear. The other three should be equally dense.

The three dense patches should have the same density as the white patch. When they do, it means that all unwanted color has been removed from these areas. Likewise, the three equally clear patches should have the same density as the black patch. If they do, it means that the solid colors, which the separation will eventually print, will be fully color saturated.

The patches shown in this figure are "ideal." With good inks and correct procedure, these conditions should be matched closely.

When the three dense patches are not as dense as the white patch, it means that these colors are under-corrected and that a mask with more contrast is necessary. If the three dense patches are denser than the white patch, the colors have been over-corrected, and a lower contrast mask is necessary.

#### Checking Masks

For a rough check on the suitability of a mask before you expose the separations, place the mask on the ground glass of the camera or the register frame. Then project the image of the copy, through the appropriate filter, back through the mask. You then check the effect of the mask on the projected color image visually.

For example, you can place the mask for the cyan printer negative on the ground glass. Put the red No. 25 filter in the lens. Turn on the arcs and note what effect the mask has on the image on the ground glass. Apply the rule-of-three. The three brightest color patches should match the brightness of the white patch. In other

(Continued on Page 123)

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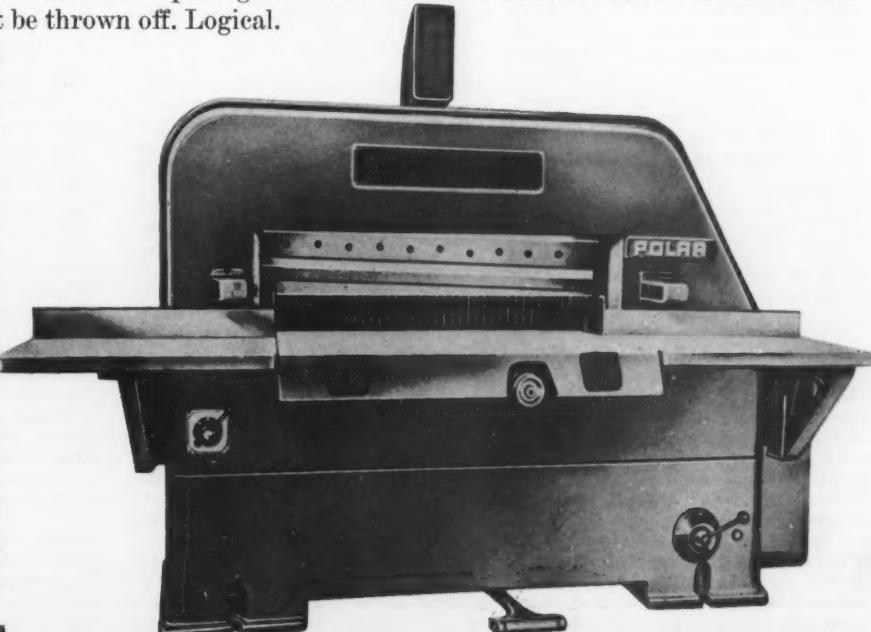
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### Photography, Tone and Color Correction

**ADJUSTING TO COMPLETE HALFTONES.** James M. Nolan. *National Lithographer* 65, No. 3, March 1958, pp. 18, 24, 114 (3 pages). Care in making a matched set of halftones will eliminate cause of a large number of poor color jobs.

**ESTIMATING CAMERA WORK—A BETTER APPRECIATION OF THE TIME VALUES.** Phillips N. Piper. *National Lithographer* 65, No. 5, May 1958, pp. 22, 24, 80 (3 pages). The need for precise evaluation of camera time for specific jobs is discussed.

**REPRODUCTION AND GRAPHIC ARTS OPTYPE JUSTIFYING LINE CAMERA.** Herbert P. Paschel. *Photo Methods for Industry*, Vol. 1, No. 12, Dec. 1958, pp. 18-9, 2 pages. The Optype camera photographs typed copy, a line at a time, with each line optically adjusted for length to justify the line and give even right margins. Adjustment for each line is manual.

**TOP COLOR REPRODUCTION WITHOUT COLOR COPY!** Jeffrey White. *The Graphic Arts Monthly* 30, No. 12, December 1958, pp. 74, 76, 78 (3 pages). Color separation direct from object is recommended as bet-

ter than working from an intermediate color transparency. Advantages given are sharper detail, more accurate color, and shorter time.

**DROPPING OUT THE WHITES.** GRAPHIC COPY AND STUDIO CAMERA TECHNIQUE. Herbert P. Paschel. *Photo Methods for Industry*, Vol. 2, No. 2, Feb. 1959, pp. 14, 16, 2 pages. A review of highlight dropout methods with special reference to the new Kromo-Lite process and fluorographic processes.

**\*THE 'SECONDARY' MASKING PROCESS FOR OFFSET PRINTING.** B. Gasch. *Papier u. Druck*, Vol. 8, No. 2, Feb. 1959, Druck u. Repro. pp. 24-5 (in German). This masking method has been developed at the I.G.T. Leipzig for the preparation of color and tone-corrected color separation negatives intended for four-color offset printing. The color separation negatives, masked in the camera in the usual manner, receive a second masking with a silver mask, called a 'secondary' mask, which functions during exposure of the positive as a means of developing the tone contrast which is required in offset printing. The techniques employed for this masking process (patent applied for), which permit the direct screening of color copy, are briefly described.

From *Printing Abstracts*, Vol. 14, No. 6, June 1959, Abstract No. 2214.

**\*THE METHOD OF THE 'SLANTING PLATE' FOR THE DETERMINATION OF SCREEN DISTANCES.** K. Stotzer. *Fachh. Chemigr.*, No. 1, Feb. 1959, pp. 28-33 (in German). A transparent plastic wedge is placed between the screen and the photographic emulsion, and the effect of all screen distances can be determined in one exposure. The preparation of test exposures and the techniques in use with this wedge are described. From *Printing Abstracts*, Vol. 14, No. 6, June 1959, Abstract No. 2245.

**VERTICAL PROCESS CAMERAS.** Anon. *Photo Methods for Industry*, Vol. 2, No. 3, Mar. 1959, pp. 17-8, 2 pages. Vertical process cameras reproduce small format copy, conserve floor space, often operate without a darkroom or entirely within a darkroom. A table lists data on such cameras as made by 11 different manufacturers.

**PHOTOGRAPHER-MADE VELOXES CAN DO EXPENSIVE GRAPHIC ARTS JOBS.** Herbert E. Paschel. *Photo Methods for Industry*, Vol. 2, No. 3, Mar. 1959, pp. 96, 98, 2 pages. Brief description of pre-screened prints, how made and how used.

**TRICOLOR FILTERS.** H. M. Cartwright. *Graphic Arts Focal Point*, No. 4, March 1959, pp. 2-5, 4 pages. A review of the practical and theoretical considerations which govern the spectral transmission requirements of tricolor filters. It is shown that the performance of commercially available filters comes very close to the ideal. 10 references.

**COLOR-MASKING: PART 4. 'VARA' MASKING INC.** Frank H. Smith. *Graphic Arts Focal Point*, No. 4, March 1959, pp. 18-22, 5 pages. This describes a technique of color-masking in which the color masks themselves are made by a masking method—the 'masked-mask' or 'double-overlay' process. The entire, somewhat involved operation is explained with diagrams in black-and-white and color carrying out a detailed example. (To be continued.)

**LATERAL REVERSAL.** G. F. S. Cackett. *Graphic Arts Focal Point* No. 4, March 1959, pp. 46-50, 5 pages. Methods of lateral reversal are listed as: 1. Optical. 2. Projection methods. 3. Chemical reversal. 4. Printing and exposing through the back of the film and stripping. 5. Other methods (Autopositive, Astrafoil and Astrotron techniques, Diazo process, Dye reversal). Each of these is explained in some detail with some being illustrated with pictures of the equipment used.

**GRAY SCALES: SIMPLIFIED VERSIONS ARE NEAT, CHEAP CHECK ON QUALITY.** Herbert P. Paschel. *Photo Methods for Industry*, Vol. 2, No. 4, April 1959, pp. 34, 88-9, 3 pages. "The gray scale can be used as a control device without any knowledge of sensitometric techniques or the use of a densitometer." The L.T.F. and Kenro scales are discussed.

**TRENDS AND NEW PROBLEMS IN COLOR REPRODUCTION.** Frank Preucil. *Proceedings*

of the 9th Annual Conference of the Research and Engineering Council of the Graphic Arts Industry, New York City, May 18-20, 1959, pp. 93-6, 4 pages. Trends in reproduction in the various processes are noted as: letterpress, toward rotary presses and away from hot metal; gravure, toward a hard dot process; lithography, toward smoother plates and sharper dots, cheaper papers, and plates that give longer runs. In color there are better inks, better papers, better photographic emulsions, masking methods under better control, and electronic scanners. The trend has been from 10, 20 or 30 colors to three or four and LTF has a project to do it in one impression. There has been progress in the making and selecting of inks. Work is being done on continuous tone lithography. Problems in paper whiteness are discussed. Gray scale and viewing light are further advances mentioned. Demonstrations and sets of slides used in the talk are not reproduced in the Proceedings.

CONVERTING RELIEF FORMS FOR PHOTO-MECHANICAL REPRODUCTION. Bernard R. Halpern. *Proceedings of the 9th Annual Conference* of the Research and Engineering Council of the Graphic Arts Industry, New York City, May 18-20, 1959, pp. 14-21, 8 pages. The properties of a good negative for offset lithography, powderless etching and photo-relief plates are listed in general terms. Attention is given to reproducing composition to hold proper values in fine lines, serifs and bold strokes, and several methods of making reproduction proofs and films are considered. Efforts by DuPont to make films specifically for this type of work are mentioned and results with Cronar Direct Positive Clear Film are shown. This film was printed in a proof press, developed, the ink wiped off, then fixed to get a negative of the form (type or halftone). Slides were used with the talk, but not reproduced with the paper in the Proceedings.

### Planographic Printing Processes

OPERATING TODAY'S ARC LAMP. CHARLES A. Pirolo. *National Lithographer* 66, No. 2, February 1959, pp. 14, 15, 111 (3 pages). The use of arc lights in the litho industry is discussed. They are an economical light source for lithographers.

\*THE HUBEX REDICOTE PRESENSITISED (ALUMINIUM) PLATE. Anonymous. *Printing World*, Vol. 163, No. 24, 10 December 1958, pp. 765; *Printing Abstracts*, Vol. 14, No. 2, February 1959, page 127. Exposure of the plate to any light source rich in ultraviolet rays is claimed to be only half that required for normal surface-coated plates; the extreme latitude of the coating making it difficult to over-or under-expose. Processing requires less than one minute. The plate has a highly water-receptive fine grain which is non-oxidizing.

\*PLATE GRAINING POINTS, PART II. Anon. *Litho-Print*, Vol. 2, No. 3, Mar. 1959, pp. 25, 29. The effect of graining time on grain and the finishing treatment (with particular reference to the method of drying and protection against oxidation by such treatments as the Cronak and Patral

processes) are discussed. From *Printing Abstracts*, Vol. 14, No. 6, June 1959, Abstract No. 2203.

\*PLATE GRAINING POINTS: Part I. Anon. *Litho-Print*, Vol. 2, No. 2, Feb. 1959, pp. 47-50, 4 pages. From *Printing Abstr.*, Vol. No. 14, No. 4, Apr. 1959, Abstr. 1502. The advantages of graining, its standardization, the characteristics of a good grain, preparing plates for graining, the effect of the type, size and weight of the marbles used, the relationship between operating diameter and machine speed, abrasives and the abrasive-water balance are discussed.

OFFSET PRINTING PLATES. G. Lavogez. *Imprim. Nouvelle*, No. 36, Feb. 1959, pp. 23, 25, 27, 29, 4 pages (in French). From *Printing Abstr.*, Vol. 14, No. 4, Apr. 1959, Abstr. 1518. The advantages of bi-metallic plates over zinc are discussed. The economic difficulty in producing these plates is considered the reason why 80% of the printers in France still use zinc. The introduction of an aluminum plate—Mon'al—is thought to be the solution until bimetallic plates become an economic proposition.

WHO DECIDES UPON WHICH OFFSET PLATE TO TAKE? Zvonimir Bernwald. *Der Polygraph*, 24-1958, 20 Dec. 1958, pp. 1180-2, 3 pages (in German).

### Paper and Ink

INVESTIGATIONS ON OXIDATION OF PRINTING INKS AT DECREASED OXYGEN SUPPLY. Alf Arnamo. *Grafiska Forsknings-laboratoriet*, No. 40, March 1958, pages 62-7, 6 pages (in Swedish). In the middle of a pile of printed sheets the oxygen supply is less than at top of the pile. Printing inks that are drying by oxidation which often show quite different rate of drying at top and further down in the pile. A method for studying the effect of decreased oxygen supply is described. Both letterpress and offset inks have been tested. The effect of different kind of driers has been investigated. The advantage in this respect of a drier like Grafo Drier has been experimentally confirmed.

"Fountain Dope" (Feature)—GHOSTING. John D. Payne. *New England Printer and Lithographer* 21, No. 9, October 1958, pp. 25-26 (2 pages). A discussion of ghosting caused by transfer of a part of the ink vehicle or drier from an ink. The vapors which condense on an adjacent paper surface may alter the ink receptivity and drying properties of the paper in the area of the ghost image. This results in a darker image, greater gloss variation, and variation in drying rate. Detecting potential ghosting by wiping the wet print and checking for non-uniform drying is suggested. Avoidance of low boiling paint and oils and solvents in inks, and winding of sheets is recommended for reduction of ghosting problems.

\*MECHANICAL INK MIXING. A. Williamson. *Litho-Print*, Vol. 2, No. 2, Feb. 1959, pp. 45, 47, 2 pages. From *Printing Abstracts*, Vol. 14, No. 4, Apr. 1959, Abstr. 1255. The advantages of using a portable ink mixer in the offset machine room are in-

dicated and a typical mixer and its operation described.

\*EXPERIMENTAL MAP PAPERS CONTAINING SYNTHETIC FIBERS. Anon. *Nat. Bur. Stand. Tech. News Bull.*, Vol. 43, No. 1, Jan. 1959, pp. 8-9, 2 pages. From *Printing Abstracts*, Vol. 14, No. 4, Apr. 1959, Abstr. 1272. Results of tests on hand sheets made from one part of cellulose fibers to three parts of synthetic fibers (polyesters, polyacrylates and nylon) and on machine-made paper containing 40 per cent synthetic fibre, 40 per cent cellulose ray fibre and 20 per cent acrylic binder are presented. No difficulties were encountered in printing on the synthetic fiber papers, in either black and white, or in the regular five-color lithographic process used for army maps.

ODOR FROM PRINTING INK. Anon. *British Ink Maker*, Vol. 1, No. 3, May 1959, pp. 31-3, 3 pages. This article is largely made up of excerpts from a pamphlet "Odor from Printing Ink, Notes for Guidance" issued by the British Carton Association in May 1955. Sources for odors specific to the four printing processes commonly used for carton printing are reviewed as follows: 1. Aniline (Flexography). The main trouble is with residual ink solvents and recommendations are given for controlling this. 2. Gravure. This is much the same case as with aniline and the same recommendations are applicable. In addition, it is preferable to use inks based on alcohol as solvent rather than xylol or toluol. 3. Letterpress. Moisture set (glycol) type inks have little odor and pose little problem. Drying oil inks have some odor and recommendations are given for minimizing this. 4. Lithographic offset. Much the same problem as letterpress with drying oil inks except that they are frequently even slower drying. Recommendations are given for minimizing the troubles. 5. Varnishes. Overprint varnishes are applied by letterpress or lithographic printing and the recommendations given for those processes would apply. Coating varnishes are most likely to be solvent based, like aniline or gravure inks and the recommendations for those inks would apply. The one recommendation most frequently given is to be sure to let your ink maker know the nature of the work for which the ink is intended.

MAGNETIC INKS—DO THEY WORK? G. L. Erikson. *Proceedings of the 9th Annual Conference* of the Research and Engineering Council of the Graphic Arts Industry, New York, May 18-20, 1959, pp. 22-8, 7 pages. The magnitude of the task of bank check sorting is pointed out. Research led to the adoption of magnetic ink characters as a means toward automating this task and the standards and procedures arrived at are illustrated briefly by slides (not reproduced in the Proceedings). The problems for the printer are listed as: voids or pick; lack of coverage; embossing; setoff; ragged edges; and slur. The problems involved will result in slight increases in costs. Plans for the future of magnetic ink sorting are touched upon.

(Continued on Page 118)

# 6 LEADING USERS TELL WHY



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MODERN LITHOGRAPHY, February, 1960



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## LITHO CLUB NEWS

### Boston

#### "Web-Offset Today" Discussed

"Web-Offset Today" was presented by W. Howell Lee, regional manager, American Type Founders Co., at the Dec. 7 meeting of the Boston Litho Club, held at the Hotel Vendome.

Mr. Lee described the range of products which are entering the web-offset field. He illustrated his talk with slide illustrations of new web-offset installations, and close-ups of significant features. He also showed samples of various types of jobs now done on web-offset, with particular

emphasis upon equality as well as speed.

R. Curtis Reed, Interchemical Corp., and past president, fo the club, inducted the new members. They are Kenneth Crawford, The Crawford Press; Edward F. Bakutis, Crawford Press; David B. Tenney, Pratt Paper Co.; John F. Pow, John P. Pow Co.; Henry Marsh, Van Son Holland Ink Co.; Thomas Finneran, John P. Pow Co.; Joseph F. Travers, Oxford Print; Paul Woods, and Marvin R. Tell, Interchemical Corp.; and Howard A. Lacey, Forbes Lithograph Manufacturing Co.

The Boston Litho Club was one of the 14 sponsors of the 1960 New



#### President's Message

By Fred A. Fowler

President, National Association of Litho Clubs

I CANNOT give you a summation of the mid-season NALC Council meeting because it was held after the deadline for this report. However, your Council delegate should have reported to your board of governors by this time and you can look for my report in the March issue.



The NALC treasurer, James Fraggos, has given me a report of expenses which includes the period from June until January. A total of \$3,912.87 has been disbursed, with one-third of this amount being used for direct mailing costs. This figure will be increased when each officer reports his expenditures from money allotted to him at the beginning of his term of office.



I believe the time has arrived when we must decide whether or not we will have a large or small national association. There is not  
(Continued on Page 76)

England Printing Week Program. The annual Lithographic Forum, sponsored by the BLC, was held at Boston University, Saturday, Jan. 23.

Plans are progressing for the 15th Annual Convention of the NALC to be held at the Hotel Statler Hilton, Boston, May 19-21, according to James Fraggos, general chairman.

The convention committee chairmen have been holding monthly meetings since Mr. Fraggos made his appointments last Spring. A meeting in New York of national officers and BLC officers and chairmen, was held during the 7th Graphic Arts Exposition.

### Milwaukee

#### Dahlgren System Discussed

Members of the Milwaukee Litho Club heard Harold Dahlgren, inventor and developer of the new dampening system which bears his name, describe his system and its use on the lithographic press, at the January meeting of the club.

In addition, at the January meeting, the club installed new officers for 1960. They are: Milburn Mundy, president; James Burns, vice president; Rudolph Bartz, treasurer; and John W. Miller, secretary.

### Buffalo

#### Quality Control Discussed

Albert R. Materazzi, technical representative, Litho Chemical and Supply Co., presented a talk on "Quality Control in Lithographic Platemaking," at the January meeting of the Buffalo Litho Club.

The new officers of the club are: Edward Clive, president; Theodore Zimendorf, vice president; Nicholas Louise, secretary; and Louis Gruber, treasurer. Members of the board of governors are: William Dadey, Thomas Nantka, William Pleger, Victor Reisch, Walter Schmidt, John Shoemaker, William Shults and Ralph Tufts.

In February the club program will feature a presentation of lithographic presses by American Type Founders.

## Twin City

### New Officers Installed

The newly elected officers of the Twin City Litho Club were installed at the January 7 meeting. Herman C. Goebel, past president of NALC, was the installing officer. They are: Kip Goebel, president; Fred Schulz, vice president; Andrew Anderson, secretary and John Gawlik, treasurer.

Past president Leonard Holzinger was presented with a Senefelder bust and a Browning automatic 16-gauge shotgun.

The club's by-laws were changed to make the program chairman a member of the board of governors.

Richard Grewe, Miller Printing Co. was welcomed into the club.

L. S. Wright, Hopper Paper Co., gave a talk on paper, its manufacturing problems and a list of does and don'ts in the proper handling of paper.

## Philadelphia

### Will Hold Quiz Night

The Philadelphia Litho Club will hold its annual Quiz Night, Feb. 22, with a panel of technicians representing the major segments of lithography.

The club will also hold its 23rd annual Ladies Night Feb. 13, with an evening of dinner, dancing, entertainment and prizes.

## Detroit

### Space Flight Discussed

Joseph W. Straayer spoke on "Space Flight" at the January meeting of the Detroit Litho Club.

At the December meeting the members heard a discussion by Frank Kelly, ALA, Lawrence Middlemas, Douglas Offset and John Paugh, Henry Ford Community College, discuss the progress and future of the apprentice training program in the Detroit area.

Robert Hopwood received an honorary membership in the club at the December meeting.

New members of the club are: James Rizzard and Harold Wilson.

## St. Louis Litho Club Elects Raymond Eckles

Newly elected officers of the St. Louis Litho Club are (l to r) Oscar Augustine, vice president; Carl Gerak, treasurer; Raymond Eckles, president and Frank Grob, secretary.



## Baltimore

### Will Present Color Talk

The February meeting of the Baltimore Litho Club will feature a presentation of a program on color separation by Dupont Co.

At the January meeting of the club the new officers were installed by past president Edwin Steinwedel. The officers are: Joseph Peroutka, president; George Frank, vice president; James Jones, treasurer and Gilbert Heath, secretary.

In addition, at the January meeting, the club presented awards to all members who have been in the club twenty five years.

New members admitted to the club

### Expanded Coverage

*The President's Message in the Litho Club section this month is part of an expanded program by ML in coverage of local Litho Club programs and National Association of Litho Clubs functions.*

*Is news of your club's activities appearing in these pages regularly? If not, why not appoint a correspondent at your next meeting to send us news releases about programs, elections, parties, etc. Material should be typewritten, double-spaced on one side of a sheet of paper. Try to summarize the speaker's comments, and report program for forthcoming meetings, new members and any other pertinent information.*

*The staff of MODERN LITHOGRAPHY will be glad to publish as much as there is room for!*

are: Edward D. Bafford, William D. Callahan, James S. Chellis, Irvin Kopp, Lloyd G. Johnston, Lawrence E. Cramer, Robert E. Cleveland, Richard T. O'Neill, Anthony Ziegler, John W. Sadowski, Alfred A. Gourdier, Clark A. Hargest, Thomas M. Murray and William M. Jositis.

## New York

### Two Talks on Presses

The February meeting of the New York Litho Club will feature talks by a representative of Harris-Intertype Corp., on "Wrap-around Plates and Presses" and a representative of Hoe & Crabtree Co. on the "Crabtree Countess."

"Lithography in the Soaring 60's" was the subject of a talk presented by Bernard Rosenstadt, president of Ardlee Service, at the January meeting.

Officers for 1960 were elected at the meeting. They are: Peter Rice, president; Louis H. Happ, vice president; Victor De Rose, treasurer and Edward Blank, secretary.

New members are: Charles Pasqua, Walter Platt, Jr. and Thomas Dolan.

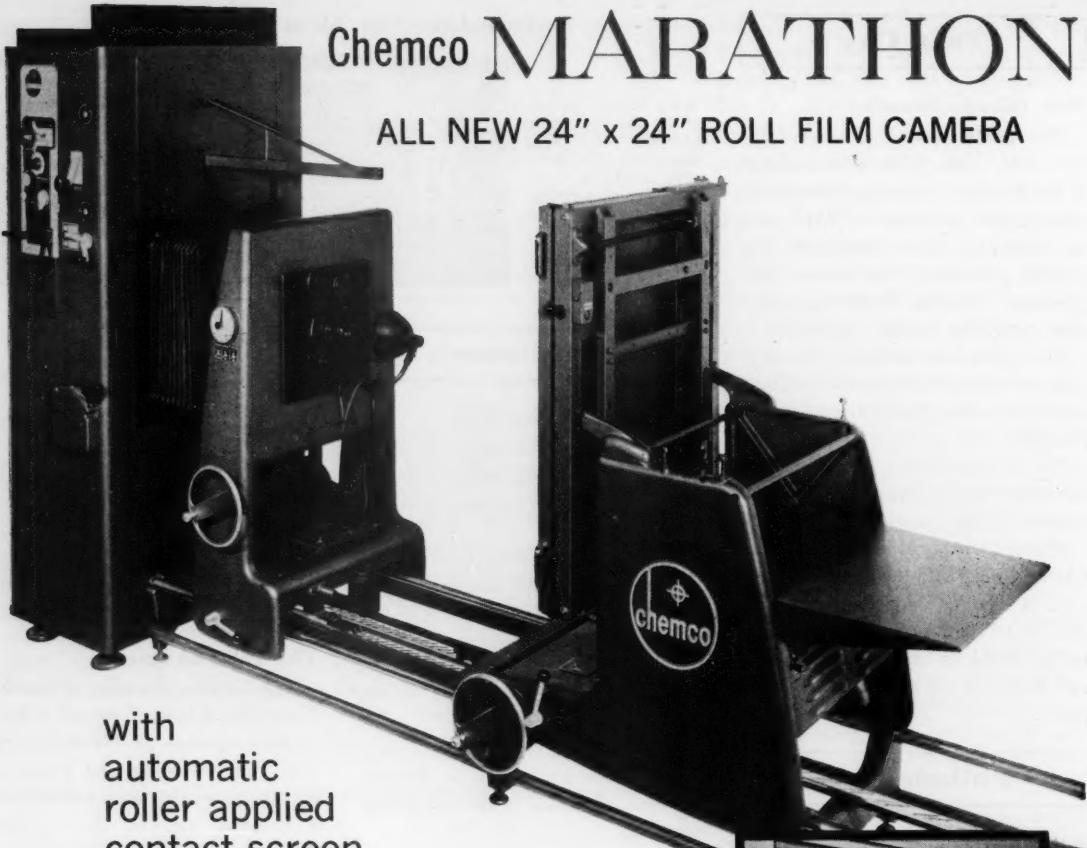
The club's annual Ladies' Night dinner-dance will be held Feb. 13 at the Hotel Biltmore. Tickets are available from A. D. Kirkpatrick.

## Shreveport

### 1960 Officers Installed

The January meeting of the Shreveport Litho Club featured the installation of the 1960 officers of the club.

The newly installed officers are: Jerome Dry, president; Paul Chandler, vice president; Elizabeth Arnold, secretary and Sarah Quigles, treasurer.



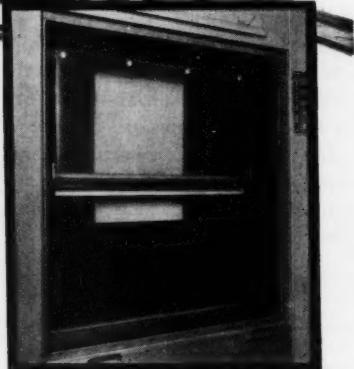
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## Plans for NALC Convention Announced

THE various chairmen of the committees for the 1960 Convention of the NALC, to be held in Boston, May 19-21, have announced their plans and progress.

Monthly meetings of the committee chairmen have been held since last April, at Boston and Cambridge, Mass., under general chairman James Fraggos, former president of the Boston Litho Club. One meeting was held in New York City last September, attended by Boston Litho Club officers, chairmen, with NALC officers, and committee chairmen of the 1959 Twin Cities convention.

Anthony Fucillo, chairman of arrangements, has announced that there will be 250 rooms available at the Statler Hilton. There will also be two complimentary suites and a hostess headquarters for the Ladies committee. Registrations made prior to the deadline, May 1, will be: single room—\$29.50; double room—\$42.00. After the registration deadline the fee will be: single room—\$32.00; double room—\$44.50.

Edward Allen, chairman of entertainment, announced a Thursday evening Carnival program, and a Saturday evening ball with entertainment.

Joseph Griffith, chairman of reception and hospitality, has appointed Mrs. John R. Conlon and Mrs. James Fraggos as co-chairladies of the Ladies Hospitality Committee.

Paul C. Haley has announced that the Ladies program will include two tours of historical areas—the Freedom Trail in Boston and the Concord-Lexington Revolutionary War area. In addition, the ladies program will include a fashion show, two luncheons and, tentatively, appearances on local television programs.

John Norton, registration chairman, has prepared the registration folder which will contain: a book of tickets, a program, hotel layout, a City of Boston folder, and other pertinent information.

Miss Charlotte E. Canzano, Miss Boston Litho Club, will serve as Princess of the Convention.

Other committee chairmen are: Thomas J. Tierney, budget and finance and R. Curtis Reed, fund raising.

### Cleveland

#### Present Color Plate Story

Ernest Baudhuin, Mueller Color Plate Co., Milwaukee, Wis., presented a motion picture entitled "The Mueller Color Plate Story" at the January meeting of the Cleveland Litho Club. After the picture Mr. Baudhuin conducted a question and answer period on color reproduction. There was also a display of various reproduction processes.

Robert Weipking has been elected president of the club for 1960.

New members of the club are: Albert Gaylor, R. L. Kinhead, and John Levin.

### Cincinnati

#### See Ektalith Method

Slide and motion picture demonstrations of the Eastman Ektalith method of printing were presented at the February meeting of the Cincinnati Litho Club by Robert Carnahan, graphic arts representative for the Eastman Kodak stores in Cincinnati and by Frank Benham, graphic arts technical representative of the Eastman Kodak Co.

Russell Esberger of Tru-Color Offset Service Co., Inc., newly-elected president, gave a history of the club in his acceptance speech at the installation dinner on January 12 in Guidara's Restaurant. A feature of the meeting was the showing by Ralph Guenther, Advance Litho Plate Co., of motion pictures of boat races on the Ohio River.

Among the 68 members present were nine past presidents of the club. William E. Staudt of Young & Klein, Inc., a past president, was the installing officer.

Miss Joanne Hague was crowned "Miss Printing Week" as a feature of

the club's annual winter dance on January 9 at the Hartwell Country Club.

John Rogers of Nielsen Lithographing Co., has been appointed to the board of governors, succeeding John Hurst, who resigned to take a position in Ashland, Ohio.

Other new officers of the club are: Buford Payne, first vice president; Robert Crooker, treasurer; Paul Granger, secretary; and Harold Biddle, second vice president.

### Washington

#### Fowler Inducts Officers

Fred Fowler, president of NALC, inducted the 1960 officers of the Washington Litho Club at its January meeting. In addition to the induction of officers the January meeting featured Ladies Night with Ruth Ansell speaking on "The Wife of a Lithographer or Supplier to the Trade."

The slate of officers for 1960 is: Raymond E. Geegh, president; Walter Conway, first vice president; Paul H. Schafer, second vice president, Arthur L. Nugent, secretary and Frank P. Frazano, treasurer.

New members of the club are: William H. Cade, Martin F. Dalton, James S. Ellis, Nathan F. Finch and Robert E. Sibley.

### Connecticut Valley

#### D'Amato Elected President

Silvio D'Amato was elected president of the Connecticut Valley Litho Club Feb. 5 at a meeting in the Hotel Bond. Serving with him during the coming year will be James Bellany, 1st vice president; Irving Gross, secretary; and Fred Renkowitz, treasurer. The new 2nd vice president was not known at press time.

Mr. D'Amato succeeds Edward Yuskevich as head of the club, which draws its members from the Connecticut and western Massachusetts area. James Fraggos and John Murphy, treasurer and 2nd vice president of the NALC, inducted the new officers.

Scheduled for March 5 is the club's annual Ladies Night party, featuring

### Litho Club Secretaries

**ATLANTA** Bob Scheuer, 2118 Brannen Rd., SE

**BALTIMORE** Robert Press

**BOSTON** Vincent Aliberte, 2010 Revere Beach Pkwy., Everett

**BUFFALO** John Demake

**CANTON** Clayton Betz, 531 Grosvenor Dr., NW, Massillon, O.

**CHICAGO** John Jachimiec, Container Corp. of America, 1301 W. 35 St.

**CINCINNATI** Harold Biddle, 3308 Galbraith Rd.

**CLEVELAND** Raymond Gallagher

**COLUMBUS** Ed Carter, 873 William St.

**CONNECTICUT VALLEY** Irving Gross

**DALLAS** A. G. Copeland, 3116 Commerce St.

**DAYTON** Loomis Pugh, 1809 W. Columbia, Springfield, O.

**DETROIT** Erhardt Toensfeldt, c/o Drake Ptg. Co., 2000 W. 8-mile Rd., Ferndale

**FORT WORTH** Paul Hansen, 5317 6th Ave.

**GRAND RAPIDS** Joseph Stevens

**HOUSTON** Grady Caldwell, Caldwell Ptg. Co., 407 M&M Bldg.

**LOS ANGELES** Al Griffin, 520 Monterey Rd., Pasadena

**MILWAUKEE** Jack Miller, 2572 N. 21 St.

**NEW YORK** Ed Blank, 401 8th Ave.

**OKLAHOMA CITY** J. Earl Hunter, 536 NW 48 St.

**PHILADELPHIA** Joe Winterburg, 618 Race St.

**PIEDMONT** Mrs. Jo W. Shaw, 502 Security Bank Bldg., High Point, N. C.

**ROCHESTER** Ed Potter, 198 Weston Rd.

**ST. LOUIS** Ray Eckles, 7023 Radom

**SHREVEPORT** Roena Bradford, PO Box 397

**SOUTH FLORIDA** Ken Miller, 13451 Alexandria Ave., Opa-Locka

**TULSA** Mrs. M. K. Hare, 2521 So. Birmingham Place

**TWIN CITY** Fred Schultz, Buckbee Mears Co., Toni Bldg., St. Paul

**WASHINGTON** Art Nugent, 1130 S. Thomas St. Arlington, Va.

**CENTRAL WISCONSIN** Bill Zimmerman, Rt. 2, Box 531, Menasha

dinner, dancing and entertainment. The party is set for the Hotel Statler. Sebastian Fino heads the committee planning the party.

### Chicago

#### LTF Presents Program

Three authorities from the Lithographic Technical Foundation's research staff at Glessner House are scheduled to present the educational program at the February meeting of the Chicago Litho Club. Mike Bruno, research director, will outline the Foundation's general research program, stressing work in the study of quality, what factors affect it and how these may be measured. Also to be covered is LTF's work on paper and ink. Dr. Paul Hartsuch will present new LTF developments in platemaking, including the production of a very fine grain on zinc, testing of new non-stretch zinc alloy and diazo wipe-on coatings for zinc. Closing the program, Frank Preucil will present a visual demonstration of several paper, ink and halftone variables which affect the accuracy of reproduction. Emil Winter of Sleepack Offset Co., new president of the club, will preside.

The club's Ladies Night dinner-dance at the Morrison Hotel's Terrace Casino, was held Feb. 6. On the program was a floor show including a "balloon barrage" with audience participation.

The club's 1960 membership directory made its appearance in mid-January. Eugene C. Bulinski of the Chicago Lithographic Institute was chairman of the committee which compiled the 56-page booklet. Total number of members, as of Dec. 1, 1959, he reported, is 383.

### PRESIDENT'S MESSAGE

*(Continued from Page 72)*

one past or present officer of the NALC seeking personal or monetary gain from establishing a permanent paid officer for the Association. With this in mind, I urge you to consider the benefits to be derived and let us have a unanimous consent at the

Boston convention. The survey of local clubs, by Stuart Grau, shows a majority favor a full time paid secretary. We are big. Let us think big . . . let us act big. It is time to stop depending on others and stand on our own two feet. It has been suggested that we might secure the services of a multiple organization to operate the affairs of NALC. The fee would run about \$2,000 to \$2,500 a year. What would we get? We would get just about what we are getting now. I believe we should hire someone who will devote his *full time and attention* to our affairs and we should pay him accordingly.

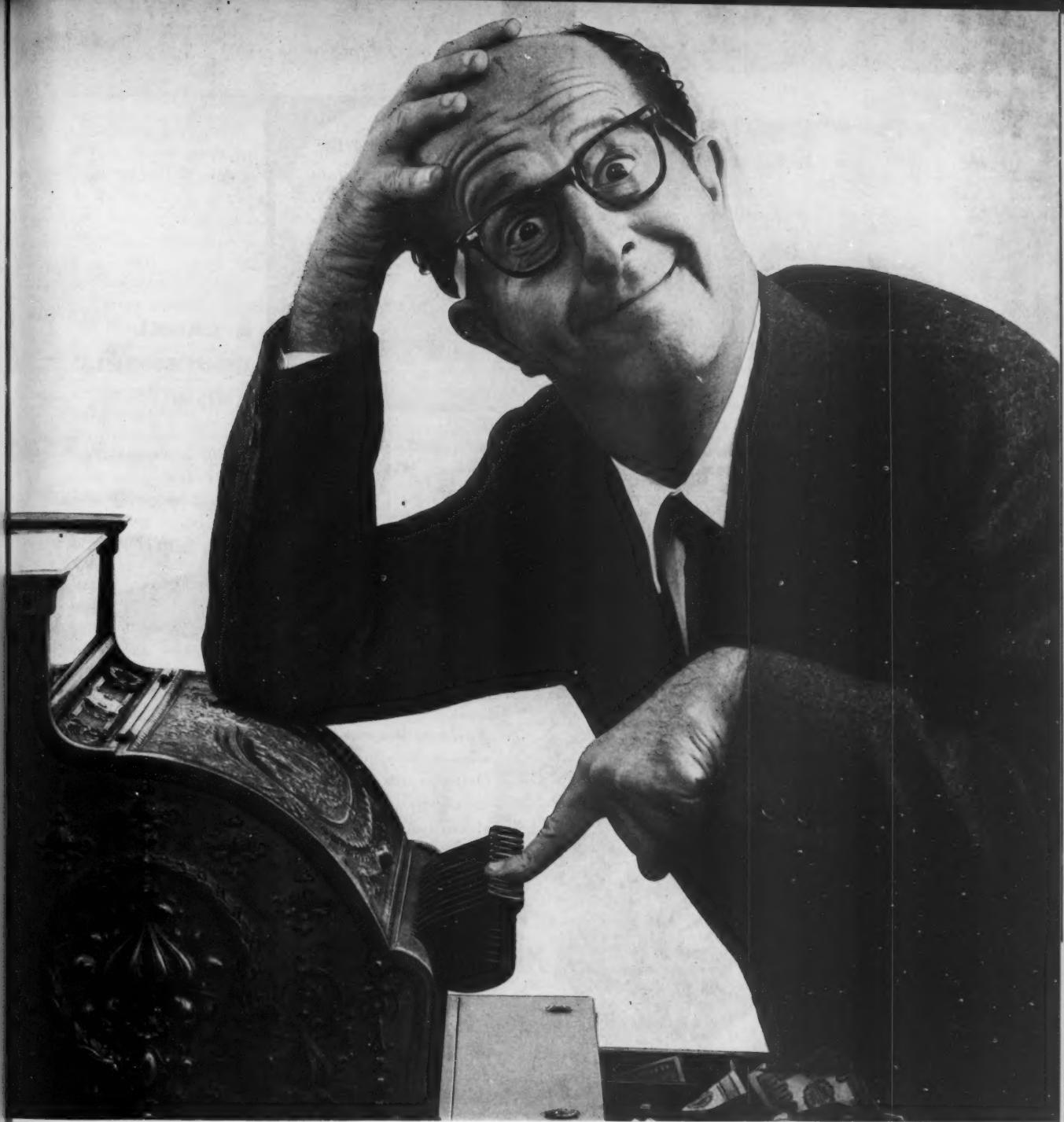


Today we are operating with a deficit budget. Our income is approximately \$6,500 but we need twice that amount to cover our expenses and broaden the services of our education program. Russell Waddell has done an exceptional job with limited funds and time. An increase in the per-capita tax from the meager \$1.50 to \$3 will not pay the cost of a permanent officer but it will let the NALC cover its normal operating expenses. The increase will allow a budget of approximately \$13,000. The estimated budget needed for NALC operations, which will include a full time paid officer, is approximately \$20,000. We believe the balance needed can and will be derived from lithographic plant participation. After all, you and I, as national Litho Club members and our companies, whether we own them or not, gain invaluable technical knowledge and contacts from our Association.



Three of the present NALC Officers have changed addresses since June 1959; we have had this sort of thing happen during each administration. You can't help but realize what this does to communications between the NALC and the many local clubs. This is another important reason for having a permanent officer and a permanent headquarters.

Watch these pages for more information about your NALC.★



PHIL SILVERS, CBS-TV STAR

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**resident representatives:** Washington, D. C.; Tulsa, Oklahoma; Rochester, New York; and San Francisco, California

**subsidiary company:** Di-Noe Chemical Arts (Canada) Limited, 565 Davenport Avenue, Toronto, Ontario, Canada



## CIT Enlarges Courses

Carnegie Institute of Technology, Pittsburgh, has announced a new program designed to serve those interested in the graphic arts and printing. A new four-year curriculum, to be introduced in September, will be centered in a newly created Department of Graphic Arts.

The new program, according to CIT, will offer two options, Graphic Arts Production and Graphic Arts Design. In Graphic Arts Production, a balanced program of design, management, and liberal studies is designed to prepare students for management positions requiring special knowledge of processes and production in the graphic arts. This course leads to a Bachelor of Science degree in Graphic Arts Production.

The second course, Graphic Arts Design, will absorb the present Graphics Design sequence in the Department of Painting, Design and Sculpture. It will prepare students for such areas as bookmaking, lettering and calligraphy, advertising design and production, typography, graphic arts processes, and

## Education Council Producing Training Films



Reviewing final script of first of a series of training movies to be filmed at The New York School of Printing are: (l. to r.) Samuel M. Burt, Charles Shapiro, Gregg Cecalla and Ferdy J. Tagle. The first film will present the fundamentals of the graphic arts industry. The succeeding films will cover platemaking, presswork, bindery and composing room operations. Each of these films will be accompanied by a text. They are being produced by Farrell and Gage, Inc., New York.

packaging.

In both of these courses, classes will be taught by faculties on the campus serving the particular professional area concerned. As an example, CIT points out that engineering courses in the Graphic Arts Production option will be

taught by the College of Engineering and Science faculty. Management courses will be taught by the Industrial Management faculty.

Further information may be obtained from the Chairman of Admissions, CIT, Pittsburgh 13, Pa.

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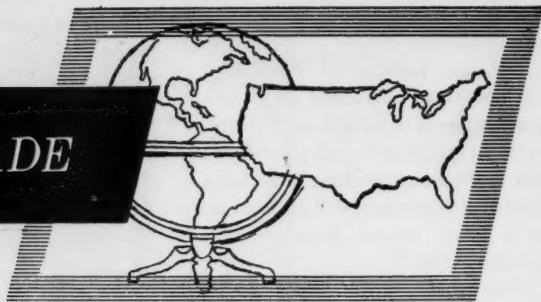
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## NEWS about the TRADE



### Horace Reed, of Niagara, Dies at 89

Horace Reed, 89, former president of LPNA, and nationally known lithographer and a civic leader, died Jan. 21. Mr. Reed was for many years president of the Niagara Lithograph Co.

In the 1890's the Richmond Lithographic Co., an old concern, decided to go out of business. Mr. Reed, then 26, joined with several other men in purchasing the company, and founded the Niagara Lithograph Co.

His father-in-law, John J. McWilliams, was president; Hugh R. Monroe was vice president; and Mr. Reed secretary-treasurer.

When Mr. McWilliams died in 1911, Mr. Reed was named president.

Mr. Reed was president of LPNA (then known as the Lithographers National Association) for two terms, from 1918 to 1920. In recent years he has been an honorary director of



Horace Reed

the association.

His son, Carl N. Reed, who was president of LPNA from 1956 to 1958, was elected president of Niagara Lithograph Co., late in January.

### McCormick-Armstrong Buys Grit Printing Co.



McCormick-Armstrong Co., Wichita, Kansas, has purchased the physical plant of the Grit Printing Co. The sale will be final after approval by Grit stockholders.

Gifford M. Booth, Jr., Grit president, will join McCormick-Armstrong as sales manager. In addition, Mr.

A. G. McCormick, Jr., (r.) president of McCormick-Armstrong Co. and Gifford M. Booth, Jr., president of Grit Printing, at the business meeting during which McCormick-Armstrong purchased Grit.

Booth will become a vice president and member of the board of directors.

Grit specializes in printing services and creative direct mail pieces. Emphasis is placed upon the customer's marketing development techniques and sales problems, Mr. Booth explained.

### Duenewald Acquires Branch

Duenewald Printing Corp., New York, has named Delaware Valley Printers, Philadelphia, as its representative in that area.

Delaware Valley Printers, 1208 E. Hunting Park Ave., has art, sales, estimating and production facilities.

Duenewald Printing maintains two- and four-color 77" offset presses in addition to its other equipment.

### Sweeney Advances Scott

C. Robert Scott has been appointed sales manager of Sweeney Lithograph Co., Belleville, N. J., a subsidiary of Federal Paper Board Co.

### Regensteiner Enlarging Plant

The Regensteiner Corp., Chicago, is observing its fiftieth anniversary by embarking on a modernization program that is expected to reach \$5 million in costs. Extensive remodeling is being done to the building at 1224 W. Van Buren Street, into which lithographing operations will be moved from the company's original 8-story building at 310 S. Racine Ave. This will provide additional space in the latter building for publishing juvenile books by the affiliated Children's Press, Inc.

Remodeling will include interior alterations, provision for office space and for complete air conditioning. The company reports that a major share of the expenditures will be spent for new lithographing facilities. Present equipment includes 16 offset presses, five of which are four-color units. The company also has its own facilities for color plate making, mixes its lithographic chemicals and supervises the grinding and mixing of its printing inks.



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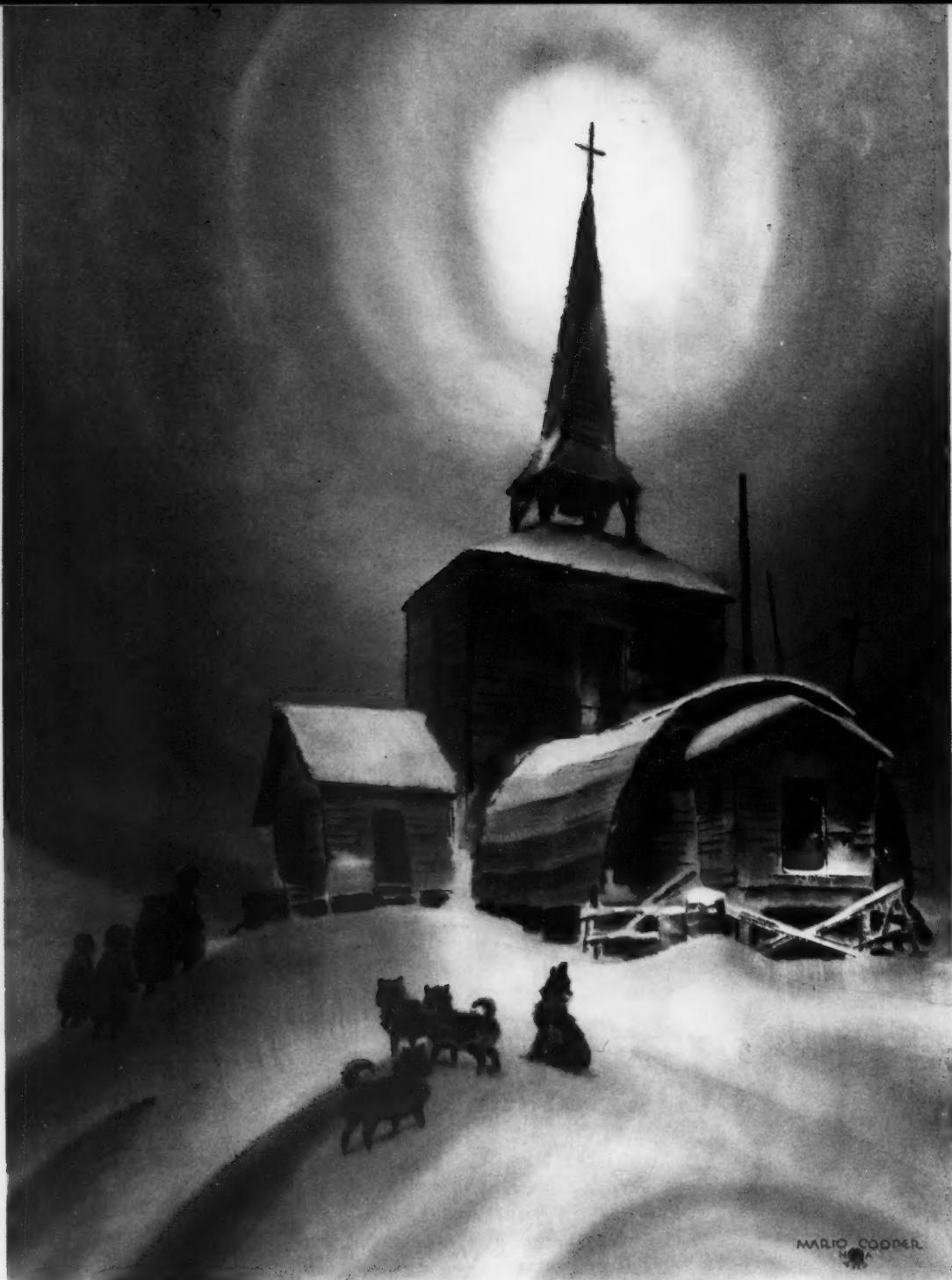
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## Discoveries in American Art

*...on Maxwell Offset*

"Sunday Morning, Point Barrow" is a timely touch of Americana by Mario Cooper while on temporary duty with the U. S. Air Force in Alaska. Mr. Cooper, award-winning painter, sculptor and illustrator is President of The American Water Color Society. Notice how his bleak, but subtly hued portrayal lives again in this *Maxwell Offset* reproduction. Then imagine your own color lithography on this fine sheet. Specify, insist on *Maxwell Offset*.

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## Education Council Starts Scholarship Fund

THE Education Council of the Graphic Arts, through its Scholarship Trust Fund, has established its



A. E. Giegengack

first perpetual scholarship through a grant from the board of directors of the National Graphic Arts Expositions, Inc. The grant was \$15,000, which will be invested to provide an award of approximately \$500 per year.

The title of the scholarship is the A. E. Giegengack National Graphic Arts Expositions, Inc. Scholarship.

The first scholarship from this grant will be made for the four-year period beginning with the school year 1960. Every four years a new recipient will be selected.

All four-year scholarships of the Education Council's National Scholarship Trust Fund are awarded for studies in the fields of printing management, engineering or teaching on the basis of a national competitive examination conducted by the Educational Testing Service, Princeton, N. J. and the College Board Entrance Examinations.

According to L. C. Shomo, chairman of the Selection and Awards Committee of the Scholarship Trust Fund, the winner of the Giegengack Scholarship, as well as the other scholarships to be awarded for the school year 1960-1961, will be announced sometime in May. A group of approximately 200 semi-finalists in the national scholarship competition for

the printing and publishing industry will be taking the College Board Entrance Examinations in February, and then will be interviewed by a committee of printers in the communities in which they reside. Final selection of the award winners will be made by a committee of educators appointed by the Educational Testing Service. There are now 18 students in college studying printing management, engineering or teaching under four-year scholarship grants from the council's scholarship fund.

Individuals and companies considering the establishment of a scholarship, either by contributions, gifts, grants or as part of their estate, have been invited to write for information to the National Scholarship Trust Fund of the Education Council of the Graphic Arts Industry, 5728 Connecticut Avenue, N. W., Washington 15, D. C.

### Counterfeit Plant Seized

Warren H. Morse, president of Advance Litho Corp., Newburgh, N. Y. was arrested, Dec. 22, by Secret Service agents and local police in a raid on the firm's printing plant during which \$45,000 in counterfeit five and ten dollar bills were reported found, according to an item in the *New York Herald Tribune*, Dec. 23.

According to police, the report stated, Mr. Warren had obtained a camera a month before and was making the bills at night, unknown to his daytime employees.

Mr. Warren and Joseph Cafaro of Newburgh, reportedly the passer of the bad money, were arraigned in New York on counterfeiting charges and released in \$5,000 bail each.

### Industrial Elects Martocci

E. Victor Martocci was recently elected president of the Industrial Lithographic Co., New York.

After his election, Mr. Martocci appointed Joseph W. Clark, vice president; Emil E. Martocci, secretary; Francis X. Martocci, treasurer; Arthur C. Eisberg, sales director, point-of-purchase advertising; and Anthony P.

Jacobi, sales director, packaging division.

All the appointees were elected to the board of directors.

Industrial Lithographic operates printing plants in Brooklyn, High



E. Victor Martocci

Point, Hickory and Burlington, N. C. and Chattanooga, Tenn.

### LPNA Reports Labor News

A recent addition to the informational services of LPNA to its members, is "Spot Labor News."

It is designed to keep members informed on up-to-the-minute labor developments as they affect lithographic industry management.

Issued under the auspices of the LPNA Labor Relations Committee, the monthly newsletter is edited by Boris J. Speroff, the association's labor relations director.

### Frank M. Farrell Dies

Frank M. Farrell, 48, lithographer and former operator of his own printing shop in Syracuse, N. Y., died Jan. 11. He had conducted his printing business for 25 years. When he died he was employed as a lithographer with the Starr Plate Making Company.

### Barker Joins Simpson

David Barker has joined the Simpson Printing Co., Greensboro, N. C., as technical director of the lithographic color separation department and he will also be in charge of the company's commercial color photography department.



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1960

JANUARY							FEBRUARY						
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24	25	26	27	28	29	30	28	29					

The Chesapeake and Ohio Railway

Everything runs smoothly when distinguished art work and fine printing are enhanced by the right choice of paper, as in this superb Chesapeake and Ohio calendar.

The paper is West Virginia's Pinnacle Offset.

Leading printers and lithographers have adopted Pinnacle Offset as their standard offset stock because of its wide versatility. Pinnacle offers a choice of bright blue white or cream white shades in regular and vellum finishes. Its even structure assures excellent stability for fine multicolor register. Stability plus runnability mean more profitable production and better looking jobs.

The Westvaco family of fine papers includes coated and uncoated grades for almost every purpose and process. These offer highest quality with all the benefits of West Virginia's direct mill-to-you sales and service policy.

For full details write: West Virginia Pulp and Paper Company, 230 Park Avenue, New York 17, N. Y., or get in touch with one of the offices listed below.

*The Chesapeake and Ohio calendar for 1960 was lithographed in six colors by I. S. Berlin, Chicago. The job was run on a four color Miehle 52 x 76 and a two color Miehle 52 x 76 press. The paper stock was Pinnacle Offset Blue White Vellum, 120# basis.*

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**West Virginia  
Pulp and Paper**

## Du Pont Opening Dycril Plate Plant

DU PONT Photo Products Department recently announced plans to build a full-scale plant to produce "Dycril" photopolymer plates.

The manufacturing unit will be built on the site of the company's Parlin, N. J., photo products plant. When completed in mid-1961, it will have an initial capacity of one million square feet of printing plates per year. Meanwhile, to supply the demand for the photosensitive plates, the capacity of the existing pilot-scale manufacturing facilities at Parlin will be doubled.

Du Pont reports that it has spent more than \$6 million over a 10-year period in research and development work on the photopolymer plates. The decision to begin making the plates on a commercial scale follows 24 months of field evaluation work in which 4,600 "Dycril" plates were tested under regular production run conditions by more than 50 different printing firms representing each of the major segments of the industry. Some of the plates for these tests were made in Du Pont's Philadelphia Printing Development Laboratory, but most were prepared by the printing concerns with their own equipment, using blank plates supplied by Du Pont.

Marketing plans call for selling the unexposed plates directly to users and to strategically located trade shops which will supply finished relief plates to printers, advertising agencies, and others. Ten trade shops in five cities—New York, Philadelphia, Detroit, Minneapolis and Easton, Pa.—are already set up to process the plates, and three additional shops, in the Boston and St. Paul areas, are awaiting delivery of equipment. Three manufacturers now offer exposure and washout equipment specifically designed for use with "Dycril" plates.

The Du Pont plate consists of a thin layer of light-sensitive plastic bonded to a metal support. To produce a printing surface, a negative is

placed over the plastic and exposed to a strong ultraviolet light. Where light passes through the negative, the photosensitive plastic quickly becomes hard and relatively insoluble. The plastic shielded by the black areas of the negative is unaffected and is washed away easily, leaving the hardened, exposed areas in relief. The company reports the entire operation, from original exposure to finished plate ready to print, takes only 15 to 20 minutes.

Photopolymer plates are especially adaptable to the letterpress process where they offer significant savings in the time needed to convert a photographic negative to a printing plate, which according to the company, is less than half an hour for "Dycril" plates compared with up to several hours for engravings. Six types of plates with variations as to relief thickness, backing, and size, are currently being made for use on existing letterpress equipment. Larger sizes and alternate thicknesses will be available within the next six to 18 months. Flexible low-relief plates will be manufactured for the high-speed rotary letterpresses now being introduced and for the dry offset process.

Du Pont now sells the blank plates at approximately \$10 per square foot depending upon the type used. As manufacturing capacity and sales increase, it is expected that this price will be gradually reduced. The company points out that with the photopolymer platemaking method, the greatest savings can be achieved where the maximum use is made of photography, where speed in platemaking is needed, and where a reduction in the press make-ready time is significant.

### US Advances Blankenheim

US Printing and Lithograph Division of Diamond National Corp. recently announced it has appointed E. C. Blankenheim as sales manager of its midwest division. He is assuming the new duties in addition to his pres-

ent duties as sales manager of the company's north central division.

Mr. Blankenheim replaces Karl E. Oelke, who has been advanced to vice president in charge of label sales.

### Ware Joins Bingham

Lawson Ware recently joined the staff of Sam'l Bingham's Son Mfg. Co., Newspaper Division, as assistant to Allan Shopnitz, in Chicago.

Mr. Ware will work directly with the nation's newspapers and newspaper press manufacturers to assist in the selection and proper use of the company's new newspaper rollers.

### Equipment Leasing

Year-end reviews of business conditions, released in January, indicate that the printing and publishing industry is making increasingly greater use of the practice of leasing machinery and equipment instead of buying these facilities outright.

Robert Sheridan, president of Nationwide Leasing Co., Chicago, in a year-end statement, listed printing and publishing among the 10 leading industries which take advantage of this comparatively new business convenience. Mr. Sheridan predicted that his firm's leasing volume would top \$400 million this year, as compared with \$307 million in 1959.

He cited three reasons for the expected increase: equipment manufacturers are using leasing as a sales tool to move products; firms are leasing equipment for their own use to avoid large capital outlays at high interest rates; and most companies are affected by increasing technological progress which speeds obsolescence of machinery.

H. L. Meckler, president of Lease Plan International Corp., New York, in his comment on year-end prospects, pointed out that the leasing business has grown 10-fold in seven years and that by 1965 volume should reach \$1 billion. "Non-ownership," he observed, "is finding wider and wider favor among businessmen in this country. In inflationary periods leasing allows companies to take advantage of present-day costs without going into debt."



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**International Paper's Springhill<sub>®</sub> Vellum-Bristol  
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—a leading member of International Paper's first family of fine papers.

SPRINGHILL VELLUM-BRISTOL now comes in a cleaner, whiter white than ever before. Plus 6 new pastel shades! Ivory, blue, pink, gray, canary and green.

On the other side of this insert, a black and white photograph was rendered into 6 separate pieces of line art. Notice the clean, graphic impressions. The soft suggestion of photographic tone and texture. This sample is dramatic evidence that Springhill

Vellum-Bristol gives excellent letterpress line art reproduction.

Springhill Vellum-Bristol is a 100% bleached sulphate sheet. Look at it. Its glare-free qualities are self-evident. Now take it in your hands and feel it. This sheet is *strong*. With a high bulk vs. weight ratio. And the low cost will surprise you!

Springhill Vellum-Bristol is *versatile*. Gives outstanding results when used for

offset, letterpress and silk-screen printing. It is made to order for menus, covers, die-cut cards, swatch cards for fabrics, catalog inserts, direct-mail pieces—any quality printing job that must combine low cost with superior performance.

Ask your paper merchant for samples of Springhill Vellum-Bristol and information about the other printing grades in International Paper's *first family of fine papers*.

## LPNA Awards Judging Held

JUDGING of the hundreds of entries received in the 10th Litho-



The panel of judges who met, in New York, during the week of Jan. 25 to select the winners in the 1960 Awards Competition of the LPNA. Seated third from left is Ralph D. Cole, Consolidated Lithograph Corp., who is chairman of the Awards and Exhibit Committee.

graphic Awards Competition & Exhibit, sponsored by the LPNA, was held during the week of Jan. 25.

Certificates of Award of equal merit will be presented to the winners at an awards dinner April 25 at LPNA's annual convention at Boca Raton.

In considering the technical lithographic excellence of the entries, the judges were instructed to look for total visual impression; neatness, as determined by good register and clean lithography; attractive color effect in relation to subject; clear definition in subjects having detail, suitable contrast or softness as required by design or purpose of piece; richness of color and tones; surface finish, appropriate gloss or dullness for subject and appropriateness and effect of stock and materials used.

The judges evaluating the quality of art and design considered such values as flair and originality; art composition and typography; spacing and color; visual impact; construction and format.

In determining the effectiveness of the function of the pieces, the judges studied its power to attract attention, hold interest and to create a constructive impression; the registration of the product and name in advertising material and its power to build desire and invite or urge action.

Ralph D. Cole, chairman of the awards committee, named James V. Sbrigata of the Colgate Palmolive Co., New York, general chairman of the panel of judges.

Judges were divided into six teams to examine the entries. Categories in-

clude (1) point-of-purchase material; (2) direct mail, business

forms; magazines and house organs; (3) books, book jackets, maps, menus, programs and announcements; (4) posters, cards, decals and metal lithography; (5) packaging, specialties and novelties, bank and commercial stationery and (6) calendars, art prints, greeting and pictorial cards.

### RIT To Offer New Course

The division of photography, printing and graphic arts at Rochester Institute of Technology will offer a four-year curriculum in photomechanical reproduction leading to the bachelor of science degree, in September.

The new curriculum will combine the faculties and facilities of the department of photography and the department of printing in a special

### FLASH!

As this issue was on press, the 10 week ALA strike in San Francisco was settled Feb. 1, with a two-year contract calling for wage increases of four percent and other benefits.

The five disputed "hot cargo" clauses still are in the contract. They will become effective if the union successfully appeals the recent court decision against them.

About 1,200 workers were involved in the strike. Full details in the March Modern Lithography.

course in the study of reproduction processes. In addition to courses in fundamentals of photomechanical reproduction, lithography, photoengraving and gravure, the curriculum will include chemistry and physics, chemistry of graphic arts processes, optics, engineering mathematics and quality control, photographic sensitometry, theory of color processes and reproduction, elements of electronics and courses in general education such as college English and psychology, sociology, international affairs and logic.

Applicants for the new course must be graduates, with good grades, of an approved secondary school and must have at least two years of mathematics and preferably either physics or chemistry.

Further information may be obtained from the Office of Admission, Rochester Institute of Technology, Rochester 3, N. Y.

### Wieland Leaves Eureka

Charles E. Wieland, plant superintendent of Eureka Specialty Printing Co., has retired after 49 years with the Scranton, Pa. company. W. H. Mitchell, assistant plant superintendent, will succeed him.

Mr. Wieland began his career with Eureka as a jogger boy in 1911, only six years after the company was founded. He later became a press feeder and was advanced to pressman in 1918. Nine years later he became foreman and was promoted to plant superintendent in 1936.

### Eureka Buys Pee Cee

Eureka Specialty Printing Co., Scranton, Pa., has purchased Pee Cee Tape and Label Co., Los Angeles, converters of pressure-sensitive labels and tapes.

Known until recently as Printed Cellophane Tape Co., Pee Cee is the second firm of its type to be added by Eureka. Last year, Eureka purchased Mark Andy Inc., pioneer manufacturer of pressure-sensitive labels and tapes.

As a division of Eureka, Pee Cee will continue to operate under its own name, with production facilities remaining on the west coast.

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#### 3 SIMPLE STEPS



1. Place Separon over your copy.



2. With a stencil knife, cut the film and then peel it away from the areas through which light is to pass.



3. You are now ready for plating, or, you can strip the film from its plastic backing and transfer it to glass or film negatives.

**SEPARON COMPANY**  
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Artist's sketch of the new building being constructed for Cadillac Printing & Lithography Co. in Chicago.

### Cadillac Expands in Chicago

Cadillac Printing & Lithographing Co., Chicago, last month started construction of a modern plant in Broadview, a west side Chicago suburb, with completion date set for the fall.

The one-story structure will contain 50,000 sq. ft. of working space, which is an increase of about 50 percent over that now occupied by the company at its West Van Buren St. location. The building is being erected on a four-acre tract which will allow ample space for parking and room for future expansion.

Equipment in the new plant will include two four-color 76" presses, and a two-color, 38" press. Space has been allocated for early installation of a 35" web-offset press. Complete lithographic platemaking facilities will be included.

Cadillac reports sales in 1958 were 50 percent greater than in 1957, and the 1959 sales volume was a 35 percent increase over 1958. The company was founded in 1950.

### Two Join ATF

Arnold Phillipson has been appointed a sales representative for American Type Founders Co., Elizabeth, N. J., covering most of the state of Oregon. His headquarters will be in the ATF Portland sub-office, 1224 S.W. Salmon St., Portland.

John Gavrel has been appointed a sales representative for ATF in Los Angeles. He will operate under the general direction of Orson Udall, ATF branch manager in that city.

### Beck Buys Colorcraft

George D. Beck, chairman of the board of the Beck Engraving Co., has announced the purchase of the Colorcraft Co., Philadelphia, from the estate of the late Joseph Mazzaferrri, who died in a plane crash Dec. 1.

Beck plans to operate the trade platemaking company as a wholly-

owned subsidiary, and will retain the name as well as all of the personnel.

The Colorcraft Co. will continue to operate at 2519 Germantown Ave.

### Harry A. Pecher Honored

Harry A. Pecher, president of Skinner-Kennedy Printing & Litho Co., St. Louis, observed his 50th anniversary with the company in December. Employes and friends honored him with a party.

Mr. Pecher, 69, joined the company as office boy in 1909. Later, he moved to the accounting department. He became treasurer in 1915, and president in 1953. He is still active in the business.

### Martin Haggerty Dies

Martin Luther Haggerty, 76, executive vice president of George La Monte & Son, Nutley, N. J., manufacturers of safety paper for checks, died Jan. 10.

Mr. Haggerty, who joined the La Monte concern in 1904, became sales manager in 1910, a director in 1914 and vice president in 1928. In 1954, he was elected executive vice president. He was also an officer and director of the company's Canadian subsidiary.

During Mr. Haggerty's fifty-six years with the company, he was responsible for the major merchandising programs that expanded the use

of safety paper for bank checks and other negotiable documents requiring protection against fraudulent alteration and counterfeiting.

### Western NY PIA Meets

The Printing Industries Association of western New York held a luncheon meeting Jan. 14, in Buffalo. Roy W. Nagle, local historian, discussed "Historical Headlines."

### Last Call for Paris!

NAPL members interested in either of the two special "Paris in the Spring" flights sponsored by the association should contact Frank R. Turner, Jr., at NAPL, 317 W. 45th St., New York immediately to register for the trip. One flight leaves New York April 26, the other, April 27. Both are for three weeks.

### Toronto Adopts Pension Plan

A new industry-wide pension plan has been adopted by the Graphic Arts Industries Association, Toronto.

Under the plan, employer-members may adopt individually tailored pension plans for their firms on a cost basis said to be comparable to that of large corporations.

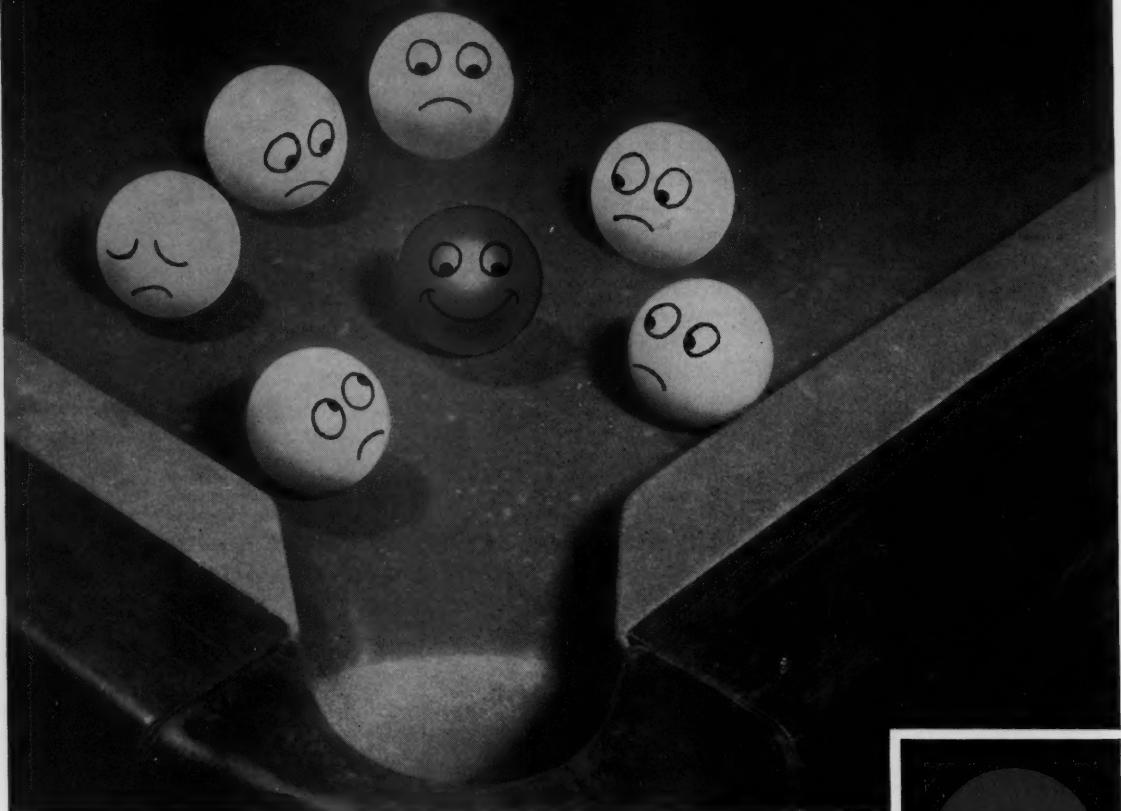
Contributions by employes are accumulated in an insured annuity fund established with Global-Life Insurance Co. Contributions of employer-members, on behalf of employes, are pooled in a retirement trust fund managed by Royal Trust Co., to be invested primarily in common stocks.

### Dickinsons Celebrate 60th Wedding Anniversary

Friends of Clarence Dickinson will be happy to know that the pioneer salesman of Harris-Seybold and Hoe offset presses, now living in retirement at Haddam, Conn. late last year celebrated his 60th wedding anniversary. Photo shows Mr. Dickinson and his wife.



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DIVISION

### **Sun Chemical Corporation**

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### Chemco Appoints Woodcock

Chemco Photoproducts Co., Inc., New York, recently announced the appointment of Victor Woodcock as office manager of its New York office at 235 Park Ave. South.

Mr. Woodcock was formerly with the St. Regis Paper Co. as assistant production manager in New York, and as sales office manager of the Rocky Mountain district office in Denver.

### Wins Trip to Rome

Mrs. Clyde K. Murphy, wife of the president of Blackwell-Wielandy Co., recently won a \$4,000 all-expense trip for two to Rome.

The trip was presented by radio station KMOX at the 57th annual Christmas Party of the Advertising Club of St. Louis. The Murphy's plan to make the trip in the Spring.

### Paper Co.'s Contribute Land

A 1,200-acre tract of Adirondack timberland was donated as a recreational area to New York State by International Paper Co. and Finch, Pruyn and Co., Inc., in ceremonies at Albany, Jan. 14.

The tract, atop Wakeley Mountain, a 3,600-foot peak near the town of Indian Lake, adjoins existing lands already held by the state in the Adirondack Preserve.

### Lanston to Move Plant

Lanston Industries, Inc., manufacturer of graphic arts equipment and machinery, announced last month that it will move from Philadelphia to a new location in Downingtown, Pa., in the Spring.

Lanston's present plant, at 2400 Locust St., will be occupied by the National Publishing Co., 97-year-old Philadelphia printing and publishing firm, which will move from its present location at 239-45 S. American St. National bought the Lanston building for \$750,000. Lanston will occupy a one-story building on Boot Road in Downingtown, which is near Philadelphia.

C. Howard Thomas, president of National Publishing, said his firm's move to the Lanston building will

enable it to expand and install added equipment. He anticipates a 25 percent increase in employment in the next few years. National Publishing has a subsidiary division, National Bible Press.

### John L. Finegan Retires

John L. Finegan retired last month, after 55 years of service with American Bank Note Co., Chicago. Starting as an errand boy at 12, he ended his career as assistant sales manager of the securities sales division. American Bank Note Co. manufactures lithographed bank checks, bank notes, stock certificates, bonds and other financial papers in Chicago. The New

York branch also prints postage stamps for foreign governments.

### Schaff Honored by University

Merle S. Schaff, president of the Dando-Schaff Printing and Publishing Co., Philadelphia, recently received a Founder's Day Award at the University of Pennsylvania. He is former president of the College Alumni Society.

### Pneuma-Flo Moves

Pneuma-Flo Systems Inc., New York, moved Jan. 31 to larger quarters at 127 West 24th St. The new quarters provide 20 percent more space for the company's operation.



**"Thanks to *apco*  
REPRO-PROOFING PAPER . . .  
for taking some of the headaches  
away from Typographers" . . .**

Says Peter A. Altenhofen  
leading Milwaukee Typographer

"We've been experimenting for years with different paper stocks to produce a good, sharp, clear reproduction of type forms for Advertising Agencies, Lithographers and Engravers to use photographically . . . *apco* Repro-Proofing Paper has truly fulfilled our needs. Its smooth, dull velvet finish permits an extremely accurate reproduction. In addition, the reverse side's tinted resin barrier coating withstands penetration of various adhesives. Thanks to *apco* for coming up with a paper that takes some of the headaches away from typographers who produce 90% of their work for reproduction purposes."

Write for "tell-all" sample  
kit today. It contains unprinted  
work sheet for you to test-try.



***apco* MASKING PAPER  
now in two functional colors —  
MANDARIN and ORTHO-RED**

MANDARIN—an all-purpose sheet for use with the fastest films. Color coated on both sides, it gives complete protection to plates and films. ORTHO-RED — A scientifically designed sheet for use with orthochromatic type films with fast emulsions. Its color blocks light rays which penetrate less effective masks that fog fast films emulsions. Both are sufficiently transparent for true negative alignment.



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for the Graphic Arts Industries

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APPLETON • WISCONSIN

# 3M type "R" plates complement your craftsmanship by exceeding quality, performance, length of run demands of three out of four lithographic jobs

■ This is the famous pre-sensitized 3M Brand Plate that leading lithographers count on to give them the performance they must have for seventy-five per cent of their jobs. It has a new name—Type "R"—but the dependability, the consistency, and the quality has not been changed. ■ This is the plate that produces line, halftone, process color, and multi-color jobs with excellent quality—with sharp halftone dots and "solid" solids. The "zero stretch" of this flawlessly

smooth aluminum plate virtually eliminates registration problems. Easy to develop, handle, and store, the Type "R" Plate is not affected by heat or humidity—doesn't need gumming for shut-downs.

■ To see how the 3M Brand Type "R" Plate can complement your craftsmanship, call your supplier now.



PRINTING PRODUCTS DIVISION

A large, high-contrast black and white photograph showing a close-up, low-angle view of a printing press mechanism. It features a large, ribbed cylinder, a circular dial with markings, and various mechanical parts. The lighting is dramatic, creating strong highlights and shadows on the metallic surfaces.

3M  
MINING AND MANUFACTURING COMPANY  
WHERE RESEARCH IS THE KEY TO TOMORROW  
ST. PAUL 6, MINNESOTA

The 3M logo, consisting of the lowercase letters "3m" in a bold, italicized font. To the right of the letters, the word "MINNESOTA" is written vertically in a smaller, sans-serif font.

### Davidson Elects Davidson

William Ward Davidson, Jr., has been elected president of Davidson



William  
Ward  
Davidson, Jr.

Corp. a subsidiary of Mergenthaler Linotype Co., Brooklyn, N. Y.

Mr. Davidson is the son of the founder and first president of Davidson Manufacturing Corp. which began operation in Chicago in 1916.

Mr. Davidson, a graduate of Dartmouth's Thayer School of Engineering, joined Davidson Manufacturing Corp. in 1935 as a member of the manufacturing division. From 1935 to 1946 he was vice president in charge of manufacturing. Part of this time he served also as secretary of the corporation. In 1949 he joined Mergenthaler Linotype Co. as assistant to the vice president in charge

of sales. When Mergenthaler purchased Davidson Corp. in 1950, Mr. Davidson returned to Davidson Corp. as first assistant to the president of Mergenthaler. In 1953 he became executive vice president of Davidson.

### Haynes Elects Two

At a recent directors meeting of Haynes Lithograph Co., Rockville, Maryland, Horace F. Stokes and William F. Frampton were elected vice presidents.

Mr. Stokes, former vice president of the American Security and Trust Co. in Washington, D. C., has been active in banking circles in the nation's capital. He will serve as vice president of financing at Haynes.

Mr. Frampton will be vice president of commercial sales for the Philadelphia-New York-New England area with headquarters in Haynes' Philadelphia office.

Publication sales will continue under the direction of vice president Norman Zimmerman, located in the New York office.

### Clayton Joins Einson-Freeman

Einson-Freeman Co., Long Island City, N. Y., has announced the ap-

Robert G.  
Clayton



pointment of Robert G. Clayton as vice president and general sales manager.

Prior to joining Einson-Freeman, Mr. Clayton was vice president in charge of merchandising for the Pro-Phy-Lac-Tic Brush Co., a subsidiary of Warner-Lambert Pharmaceutical Co.

### Goldie Joins Photon

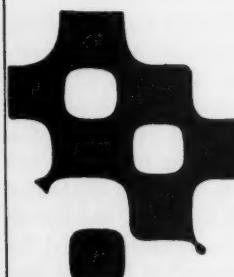
Photon Typographers, photocomposition firm of Oakland, Cal., has named Harold Goldie to the position of production manager. Mr. Goldie was previously with George Reproduction, San Francisco lithographers.

## \* complement to *Craftsmanship* 3M's family of fine products for printers

From 3M research, from the skills and know-how of quality-minded production people, come—and will continue to flow—products designed to complement the craftsmanship of the most particular printer. Just as a platemaker or pressman uses his skills to produce the finest quality printing, 3M

uses the skills of its research and manufacturing people to produce the finest possible quality products for printers.

For complete information about 3M's Family of Fine Products for Printers, call your 3M lithographic supply dealer or mail the coupon.



PRINTING  
PRODUCTS  
DIVISION

*Complement to Craftsmanship*  
3M's Family of Fine Products for Printers



Minnesota Mining and Manufacturing Company  
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- Please send me complete information about 3M's Family of Fine Products for Printers, including 3M Type "R" Photo Offset Plates.
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### LPNA Convention Program

A preliminary program, dealing with the lithographic industry's expansion and improvement in the sixties, was reviewed by LPNA's executive committee, Jan. 12, in preparation for the association's convention April 25-27.

In its preliminary form the program provides for detailed consideration of the industry's future prospects with reference to the latest Census of Manufactures on the opening day of the convention.

The second day of the convention will be devoted to LPNA Product Group meetings. Members of the advisory committees of the Bank Stationers Section, the Label Manufacturers Div., Book Manufacturers Committee, Trade Platemakers Committee and Poster Committee will confer on the problems facing their present and future operations.

Other plans, considered by the executive committee meeting, include a Lithographic Awards Dinner for the winners of the association's annual competition; a president's and

Board of Director's Reception; a Supplier's Reception and Steak Roast; the annual banquet and the men's and ladies' annual golf tournaments.

LPNA president L. E. Oswald, The E. F. Schmidt Co., Milwaukee, presided at the executive committee meeting.

Other members of the executive committee who attended are: William H. Bulkeley, Connecticut Printers, Inc.; J. Louis Landenberger, Kettelinus Lithographic Mfg. Co.; Edward E. Loebe, The Regensteiner Corp.; John B. Osborn, The Forbes Lithograph Mfg. Co.; LPNA vice president William E. Zabel, Jr., Zabel Brothers Co., Inc.

Also present were LPNA executive director Oscar Whitehouse; assistant executive director Thomas J. Curran; secretary Robert L. Eger; and LPNA eastern manager Herbert W. Morse.

•

### B&B, Standard to Merge

BROWN & BIGELOW, St. Paul, and Standard Packaging Corp., New York, jointly announced during Janu-

ary that the boards of directors of the respective companies have authorized negotiations of a merger agreement between the two firms.

This agreement would provide for the issuance to the stockholders of Brown & Bigelow of 789,788 shares of a new series of preferred stock to be created by Standard upon the surrender of the 1,263,645 shares of common stock now outstanding of Brown & Bigelow. The exchange ratio is .625 shares of the new Standard Packaging Corp. stock for each share of Brown & Bigelow stock.

Upon completion of the merger, Mrs. Charles A. Ward president of Brown & Bigelow and Philip H. Nason, president of St. Paul's First National Bank and a Brown & Bigelow director, will serve on the board of directors of Standard Packaging Corp. Ernest C. Peterson, executive vice president of Brown & Bigelow, will become a vice president of the merged company.

Standard Packaging Corp. with headquarters at 200 E. 42nd St., New York, manufactures paper, paperboard, aluminum foil, flexible plastics, paper packaging products and consumer items such as paper plates and cups. It reports sales running currently at approximately \$100 million annually.

Brown & Bigelow, and its subsidiaries report annual sales of approximately \$50 million. It is primarily engaged in design, manufacture and sale of a wide range of articles under the trademark, "Remembrance Advertising," and sold mostly to business firms as advertising media.

•

### Agency Offers New Service

Goldsmith-Tregar Co., advertising agency, Providence, R. I., recently announced the formation of a new and separate division for the planning and production of sales promotion material specializing in catalogs and catalog inserts. The agency, headed by George M. Goldsmith and Harold Tregar, produces sales material for clients throughout New England, New York and New Jersey.

The new department is headed by Peter S. Sutter, art director.

## Report Tests on Wrap-Around Plates

THE first tests on copper wrap-around test plates for determining the necessary relief for plates used on letterpress wrap-around presses have been completed. The test plates were designed by J. W. Rockefeller, Jr. and Associates, Consulting Engineering Firm, Short Hills, N. J.

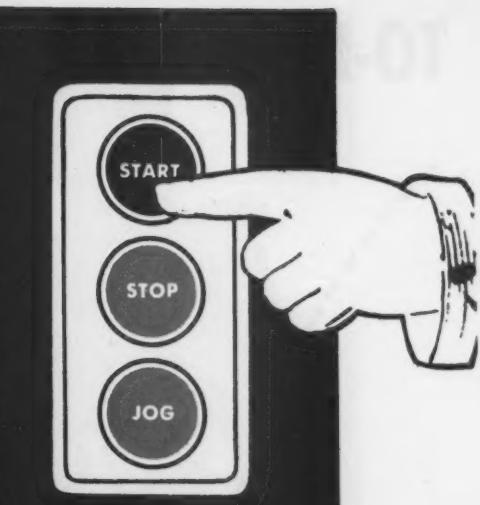
The letterpress plates are etched to a maximum depth of .005" with open areas of several inches both around and parallel to the press cylinder for determining at what point from the printing areas the form rollers will "bottom." In tests on the first two presses checked, the firm reports, no form roller bottoming occurred anywhere on the plate. This was true also where the plate was used as a dry-offset plate on a standard wet-offset press.

Several years ago tests were made on a standard newspaper press to determine the relationship between the required amount of relief and

the area of the non-printing surfaces. At that time it was found that for even a two-inch dimension between printing areas, a relief of at least .012" is required to prevent smudging. It is believed that the vast improvement indicated between the results of this test and those just completed on the newer presses is due largely to more precise and stiffer form rollers and better roller bearings. Tests will be continued on foreign made wrap-around plate presses as well as on standard flexographic presses in order to determine the depth of relief necessary for each application.

Although the initial tests on recently developed wrap-around plate presses seem encouraging, the firm reports that it should be noted that they are not, at this time, to be considered conclusive. The tests were made under ideal conditions and the length of run was short.

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## use the new Stark BRUSH GRAINED ALUMINUM PLATES

You'll see the finest reproduction of tones and solids when you start using the new Stark Grain Aluminum sheet. Produced on the newest graining equipment now operating, the brush grain gives a smooth surface never matched by old graining methods. The brush grain is perfect for deep etch, negative whirler coating, and negative wipe-on process. Brush grained sheets are available for all sizes of offset presses. Carried in stock, they can be delivered overnight to New England and the New York metropolitan area.

Stark also sells ball grained or ungrained Alcoa Litho Sheets, R B P Chemicals, and is a 3M dealer.



## JOHN STARK LABORATORIES

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# TO-DAY'S MODERN PRINTING METHODS need MODERN ROLLERS

*make the  
SMART MOVE  
change to...*

**Only TRU-TONE Rollers offer these outstanding  
advantages for Offset and Letterpress**

- **GREAT INK AFFINITY** — because of natural tack and mirror-smooth surface. Excellent with rubber-base and other popularly used printing inks.
- **CLEAR, SHARP PRINTING.** Because TRU-TONE Rollers have such a great affinity for ink, it lays a uniform ink film.
- **HICKEY-FREE PRINTING.** Natural tack is so superior on TRU-TONE Rollers that they can be used as hickey rollers. They pick up and hold dust, lint and ink particles extremely well.
- **SIMPLE TO CLEAN.** No hills and valleys — non-porous — ink cannot penetrate mirror-smooth surface.
- **WEATHER-RESISTANT.** Hot press frictions or cold start-ups do not affect the resiliency of TRU-TONE Rollers.
- **ABRASION-RESISTANT.** Much greater than any known roller — rubber or synthetic. Ideally suited to high-speed and automatic presses.
- **AMBER CLEAR.** White core is visible when clean. Each roller bears a number and the patented TRU-TONE name.

*For complete technical advice and further information, call or write:—*

**GRAPHIC SUPPLY CO., INC.**

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144 OLIVER STREET, BOSTON, MASS. • Liberty 2-0068



...and at their best  
when they  
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There's a military precision to color register—an added snap to reproduction—when you print on *Franklin* fine papers and *Williamsburg* Offset. Prove them in action on your own presses. Try *Princess Anne* Bond, too. Sizes, weights and samples from your local Union-Camp fine paper distributor.

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FINE PAPERS

Union Bag-Camp Paper Corporation 233 Broadway N.Y. 7, N.Y.

Norwegian King's Guard—printed on Franklin Vellum Bristol. Basis 22½ x 22½-224M. For full-color reproduction of this "honor guard", suitable for framing, write Dept. 26, above address.



## TAPPI Meeting Announced

The 45th annual meeting of the Technical Association of the Pulp and Paper Industry will be held in the Hotel Commodore, New York, Feb. 22-25. Twenty-nine technical sessions, the annual business meeting, and nearly 60 committee meetings will highlight the program.

A yearly event, held during the week of Washington's birthday, the meeting is expected to attract 3,000 papermakers and allied industry personnel. Technical sessions will cover topics as diverse as acid pulping and graphic arts.

## Forbes Advances Lein

Ralph H. Lein has been appointed manager of the originals department of Forbes Lithograph Mfg. Co., Chelsea, Mass. Mr. Lein succeeds John A. Hofling who retired after 36 years' service.

Mr. Lein joined the Forbes Co. in 1937, advancing from litho and dot etch artist to his most recent position as assistant manager of the originals department. He serves on the Board of Governors of the Boston Litho Club.

## Litho Chemical Appoints Chemco

Chemco Photoproducts Co., Glen Cove, N. Y., has been appointed a dealer for the products of Litho Chemicals Supply Co., Lynbrook, N. Y. Lith-Kem-Ko products will be available through all seven Chemco branches as well as the Chemco export organization. Lith-Kem-Ko produces a wide variety of chemicals for lithography.

## Cin. GAA Elects Bedinghaus

William H. Bedinghaus, Jr., Bedinghaus Business Forms Co., was elected president of the Graphic Arts Association of Cincinnati at its annual dinner meeting in December. He succeeds Wayne Hogan. Other officers are John J. Klinker, Jr., U. S. Printing & Lithograph Co., vice president; William A. Kleesattel, Feicke Printing Co., treasurer.

Directors elected for three-year terms were J. N. Johnson, Standard Publishing Foundation; William W. Pugh, A. H. Pugh Printing Co.; John

Powell, Powell & White Printing & Publishing Co., and Robert Lawson, Bohnett Co.

Reuben B. Robertson, Jr., president of the Champion Paper & Fibre Co., Hamilton, O., was the dinner speaker. He discussed the decade ahead for the paper and printing industries.

## Bank Check Company Founded

General Bank Check Co., Nashville, has been established by Cullom & Ghertrner to manufacture bank check and accounting forms for magnetic imprinting.

The company will use sensing instrumentation and optical equipment designed to evaluate magnetic ink quality of printing.

The company's functions will include magnetic ink personalizing; encoding and numbering; magnetic ink applications for accounting forms used in automated processes; and 24-hour service for planographic forms production.

A. D. Bayne has been named general sales manager, and R. E. Lorenzen has been appointed production manager for the new company, which will be operated as a separate corporation.

## Soderstrom To Speak

Walter E. Soderstrom, executive vice president of the National Association of Photo-Lithographers, recently addressed two groups of lithographers.

On Feb. 2 he addressed a group of offset personnel at a luncheon meeting in Richmond, Va. A few days later, he addressed a similar gathering of lithographers in Florida.

## MVLA Elects Brinkman President

Newly elected officers of the Miami Valley Lithographers Association are (l to r), front: Eric Nielsen, vice president; Harry Brinkman, president; (rear) Andrew Donaldson, Jr., treasurer; Raymond Ostrandner, trustee; William Stevenson, trustee and John Rockaway, executive secretary.



## Schulkind Leaves Lawson

David W. Schulkind announced his resignation in January, as president of the Lawson Co., Division of Miehle-Goss-Dexter, Inc., Chicago. Mr. Schulkind had been associated with the Lawson Co. since 1918.

Mr. Schulkind entered the graphic arts with Samuel C. Tatum Co. He became manager of the Tatum machinery division of Lawson in 1918, and sales manager of Lawson in 1923.

He was elected vice president of Lawson in 1924 and president of the company in 1942 and in 1955 he became sole owner of the E. P. Lawson Co. In 1957, when the company was purchased by Miehle-Goss-Dexter, he became president of the Lawson Division.

Mr. Schulkind will return in March from a trip to the Far East. He has indicated that he still may be associated with the graphic arts in some capacity.

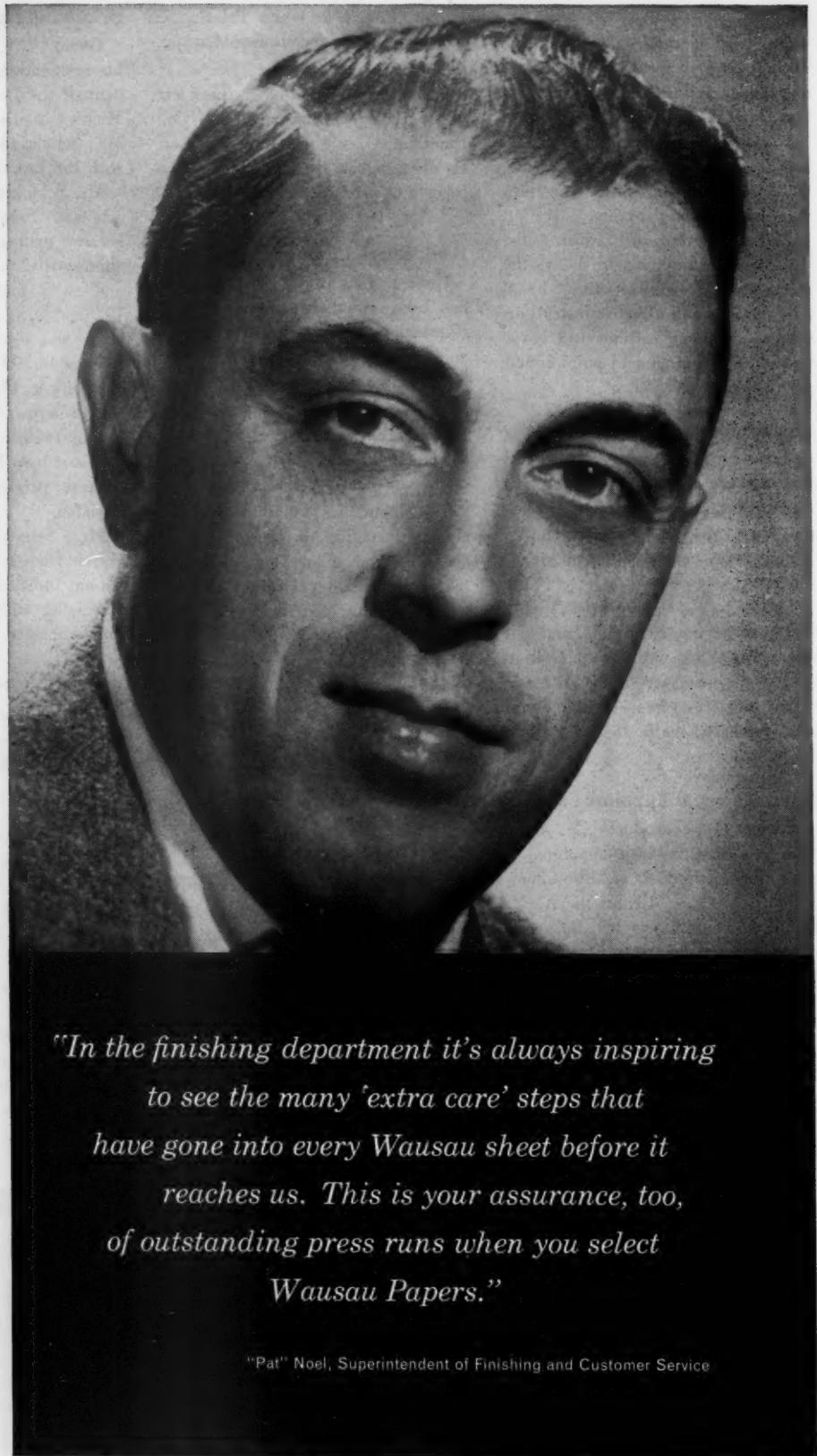
## Web-Offset Discussion Planned

A round table on web-offset will be the opening event of the Graphic Arts Conference scheduled for the Benjamin Franklin Hotel, Philadelphia, March 28.

Parent sponsor of the conference is the Delaware Valley Section of the Technological Association of the Pulp and Paper Industry. Cooperating groups include the Philadelphia Litho Club.

The litho session is set for 9 to 11 a.m. The first hour will be devoted to the presentation of technical papers. The second hour will consist of round table discussions of the papers and the subject in general.

**WAUSAU BOND • WAUSAU TEXT • BROKAW OPAQUE OFFSET  
EVEREST TEXT • BROKOTE • WAUSAU INDEX • WAUSAU LEDGER  
MIMEO • DUPLICATOR • ENVELOPES • OFFICE IMPRESSION PAPERS**



*"In the finishing department it's always inspiring  
to see the many 'extra care' steps that  
have gone into every Wausau sheet before it  
reaches us. This is your assurance, too,  
of outstanding press runs when you select  
Wausau Papers."*

"Pat" Noel, Superintendent of Finishing and Customer Service

## Diamond Advances Two

John Lambie and Alfred H. Wilhelm have been elected vice presidents of Diamond National Corp., New York. Mr. Lambie will be in charge of the company's United States Printing & Lithograph Division, the Gardner Division and Brooks, Inc. Mr. Wilhelm will be in charge of budgetary controls.

Diamond National was formed last fall by the merger of Diamond Gardner Corp. and The United States Printing & Lithograph Co.

Mr. Lambie, who was born in Renfrew, Scotland, joined United States Printing & Lithograph in 1929, as assistant to the eastern manager. In 1955 he was made vice president in charge of development of advertising materials.

Mr. Wilhelm began his business career in 1935 as an assistant supervisor in the cost-accounting department of U. S. Printing. He held several supervisory positions in the accounting and controller's departments until 1952 when he was elected controller. In 1956 he was elected a vice president and controller and earlier

this year became secretary of the U. S. Printing.

## Universal Advances Herlihy

James C. Herlihy has been appointed vice president, in charge of the company's eastern division in New York City.

## Leckey Named Chairman

Matt J. Leckey has been appointed chairman of the executive committee of the Engineering Development Council for Manhattan College. The Engineering Development Council is conducting a drive to raise \$5,000,000 for a building in which Manhattan's scattered School of Engineering operations can be centralized. Francis Cardinal Spellman is honorary chairman of the Engineering Development Council; Hon. James A. Farley is general chairman.

Mr. Leckey is president of Sinclair and Valentine Co., New York, and chairman of the board of Sinclair & Valentine Co. of Canada Ltd., Divisions of American-Marietta Co. He is

also a member of the board of directors of American-Marietta Co.



Leckey

Bandelin

## Forbes Advances Bandelin

John L. Bandelin has been appointed manager of New Product Development of Forbes Lithograph Mfg. Co., Boston. He will be special assistant to the general sales manager.

Mr. Bandelin formerly was manager of folding carton sales and will continue in these duties. In addition, he will participate in plans and programs for the development of new products and long-range planning in this area. In this connection, he is to coordinate efforts with outside research and consulting sources.

## WAUSAU DISTRIBUTORS

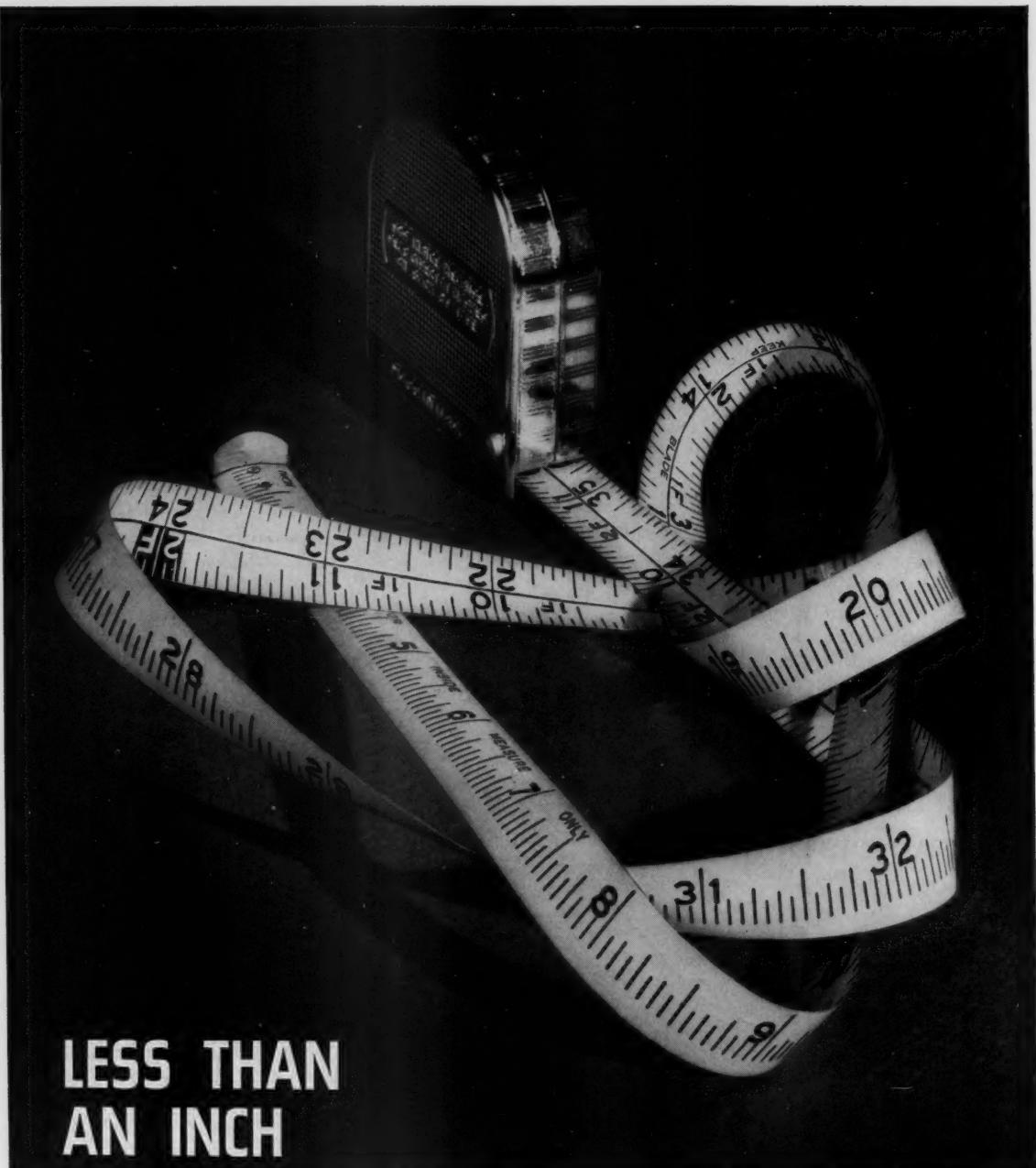
Alexandria, La. Bancroft Paper Co. Freeport, Ill. Arrow Paper Co. Natchez, Miss. Bancroft Paper Co. Atlanta, Ga. Howard Paper Co. Neenah, Wis. Sawyer Paper Co. Baltimore, Md. Stamford Paper Co. Galesburg, Ill. Wilson Paper Co. New Orleans, La. Baton Rouge, La. Bancroft Paper Co. Galveston, Texas. Magnolia Paper Co. Sam A. Marks & Co. Beaumont, Texas. Grand Rapids, Mich. Grand Rapids Paper Co. Perkins-Goodwin Co. Magnolia Paper Co. Grand Rapids, Mich. Grand Rapids Paper Co. Bellows Falls, Vt. Great Falls, Mont. Great Falls Paper Co. Mt. Kilburn Paper Co., Inc. Green Bay, Wis. Green Bay Paper Co. Stoen Macek Paper Co. Boston, Mass. Airl Paper Co. Hicksville, N.Y. Capstone Paper Co. Houston, Texas. Magnolia Paper Co. Indianapolis, Ind. The Chatfield Paper Corp. Jackson, Mich. The Union Paper & Twine Co. Jackson, Miss. Barefield Paper Co. Kansas City, Kan. Wyco Paper Co., Inc. Kansas City, Mo. B & J Paper Co. Los Angeles, Calif. Columbia Paper Co. Lubbock, Texas Western Paper Co. McAllen, Texas Magnolia Paper Co. Madison, Wis. Westport Paper Co. Milwaukee, Wis. Reliable Paper Co. Minneapolis, Minn. Minn. Paper & Cordage Co. Moline, Ill. Carlson Brothers Monroe, La. Bancroft Paper Co. Nashville, Tenn. Clements Paper Co. Wausau, Wis. Paper Specialty Co.

## WAUSAU PAPER MILLS COMPANY AT BROKAW, WIS.

District Sales Offices: Atlanta • Chicago • Cleveland • Los Angeles • New York City

# Wausau papers





## LESS THAN AN INCH

**in either  
direction  
can snarl up  
a mailing**

Help your customers plan their booklets, bulletins and direct mail with the proper envelopes in mind and avoid such snarls. It's easy when you have the U.S.E. Envelope Selector Chart, a pocket piece that shows 70 standard U.S.E. Envelopes and gives sizes. It's free. Ask your U.S.E. Paper Merchant for a copy or write Advertising and Sales Promotion Department—

**United States Envelope Company**

General Offices • Springfield 2, Massachusetts

*Helping Printers sell more envelopes profitably to more users*



P-61

## Brevities

PHILIP LITHOGRAPHING Co., formerly located in Milwaukee, has moved to 1960 Wisconsin Ave., Grafton, Wis.

CHARLES T. BROWN, JR., has been elected vice president and secretary of the Franklin Printing Co., Primos, Pa. Oliver Martin has become vice president and treasurer.

EDWARD STERN & Co., Inc., Philadelphia printers and lithographers, has appointed the Lavenson Bureau of Advertising, Inc., to handle its advertising and public relations.

GEORGE A. WILLIAMS, president of Williams Brothers Printing Co., Philadelphia, has been re-elected president of the Northeast Philadelphia Chamber of Commerce.

THE INDEPENDENT PRINTING Co. of Richmond, Calif., is lithographing a weekly newspaper, *The Berkeley Review*, which has been established in the nearby city of Berkeley.

PRINTER'S RULE & SUPPLY Co., Inc., Milwaukee, has been named by Central Compounding Co., Chicago, as exclusive distributor of that firm's line of printing ink additives to Wisconsin printers and lithographers.

THE J. B. CARD and Paper Co., Newark, N. J., has been named New Jersey distributor for New York & Pennsylvania Co.'s offset grade, "Penn/Brite."

MELBRO COLOR SERVICE Co., 215 East 9th St., Cincinnati, specializing in lithographic color separation, observed its first anniversary in early January. The company is owned by Melvin Brauers and Robert Weber.

JOHN CONWAY, education and training director of A. O. Smith Corp., in December, addressed the Graphic Arts Young Executives Association, Milwaukee, at a dinner-meeting at the Venice club.

JAMES R. PERRY has been named an account executive with Len Beach Associates, Toledo, O., lithography specialists.

ROBERT R. TATE has been promoted to the position of sales manager for printing papers with Scott Paper Company's Hollingsworth & Whitney western sales division.

THE NATIONAL PRESS, Palo Alto, Calif., has installed two new Miehle offset presses, a 25 and a 36 single-color.

COLOR ART PRESS, Oakland, Cal., is installing a Royal Zenith 30" offset press, to be used primarily for publication work.

## Walter J. Moore Dies

Walter J. Moore, 84, retired vice president of Tooker-Moore Lithograph Co., New York, died Jan. 21, in Ipswich, Mass.

Mr. Moore had also been a former president of H. C. Miner Co., theatrical lithographers. He was a member of the City Athletic Club of New York.

## Azoplate Arranges Partnership

Englehard Industries, Inc., parent firm of Azoplate Corp., Murray Hill, N. J., has announced an agreement for a close financial and technical partnership with Farbwerke Hoechst, Frankfurt, West Germany.

Azoplate produces presensitized litho plates and related products.

**ASCORLUX**

Modernize your Camera and Printing Lamps with Ascorlux, the first and still the best in Pulsed Xenon Arc equipment. Its quality and uniformity of production and low-cost operation have been proven in many widespread installations. Consider the value of an Ascorlux installation in your plant. Start the '60's with . . .

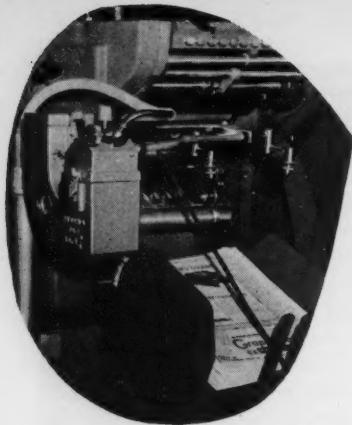
★ CONSTANT COLOR BALANCE  
★ CLEAN, COOL OPERATION  
★ CONSTANT INTENSITY FOR LIFE  
★ INSTANT START AND STOP  
★ HIGHLY EFFICIENT REFLECTORS  
★ SAFE, LOW PRESSURE OPERATION

The A1144 featured here is but one example of what American Speedlight, through a decade of continuing application engineering and equipment design, now offers to the Graphic Arts Field. For matchless efficiency, economy and quality, check with Ascorlux! For further technical information, prices, illustrated application and data sheets, write . . .

**CAMERA LAMPS**  
Model A1144 illustrated; two 1000 W. Strip Lights in combination with the compact B1144 Power Supply.

A MODERN  
**'60**  
WITH ASCOR

**AMERICAN SPEEDLIGHT CORPORATION**  
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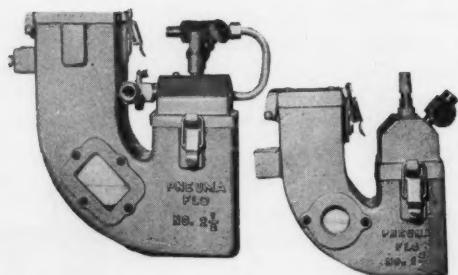
# From a multi... to multi-color...

*Every printer knows that a good powder spray system is often the difference between a perfect job and costly rejects.*

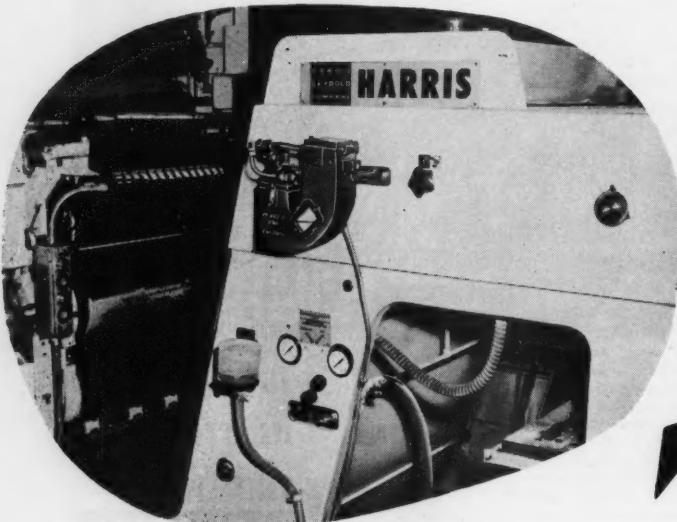
Why take chances -- now that you can take advantage of the only spray system that eliminates the poor spray uniformity, expensive parts, high voltage and frequent repairs of your present equipment.

Pneuma-Flo's automatic refill design — made for most make and size press — guarantees a continuously uniform spray, eliminates laminating problems due to poor spray coverage. Lets you print multi-color, heavy solids and varnish on coated, plastic or metallic stock. Eliminates slip-sheeting, lets you run at higher press speeds. Uses less air, yet gives you "clean working protection."

Contact Pneuma-Flo for full details on how we can help you fill your particular needs.



The Pneuma-Flo spray gun is quick filling, has a large hinged cover and visible powder level. Available in several sizes, features cast design for long life.



Pneuma-Flo Dry Spray Powders, now in 6 grades, are Mikro-Sized for all-weather use. The Graphic Arts Spray Manufacturers Association seal guarantees top quality.

**Brookfield**

Pneuma-Flo Systems, Inc. is also the national sales representative for Brookfield Viscosel automatic viscosity controls.

**PNEUMA-FLO**  
**SYSTEMS INC.**  
127 WEST 24TH STREET • NEW YORK 11, N.Y. • Algonquin 5-4551

### Keller Elects Pries

Irving F. Pries has been elected vice president in charge of production of Wm. J. Keller Inc., Buffalo, N. Y., printers and lithographers. Mr. Pries, superintendent for more than 20 years, joined the company in 1929 as an apprentice compositor. He was elected a director in 1951.

At the company's recent annual dinner, Mr. Pries welcomed Michael Hastreiter to the company's Quarter Century Club and gave salesman Roswell Yahn an award for 35 years of service. Mr. Pries, Penn Watson, Jr. and Mrs. Louise C. Sauter all received 30-year pins from the company.

### Beckett Buys Plant

The Beckett Paper Co., Hamilton, Ohio, has announced the purchase of one of the plants of the Baldwin-Lima-Hamilton Corp. which adjoins the Beckett mill. The purchase price was approximately one-half million dollars.

The floor space of the newly acquired building is in excess of 125,000 square feet. It will be used to house finishing operations, for the storage of raw materials, for work in process and finished products.

The Beckett Paper Co. is now operating three paper machines, with a daily capacity of nearly 140 tons of printing paper.

### Barnes Discusses Colored Paper

Roy M. Barnes, sales promotion manager of the organic chemicals department of Du Pont, discussed "Colored Paper in the Graphic Arts" at the January meeting of the Junior Executives Club of the Graphic Arts, in Philadelphia.

### Anso Advances MacDonough

Herbert A. MacDonough has been appointed to the newly created position of manager of product marketing for Anso, the photographic manufacturing division of General Aniline & Film Corp.

Mr. MacDonough, a graduate of the University of Michigan, has been with Anso 22 years. During that time he served in executive capacities in

the company's photo technical quality control, and technical services departments. For the past four years he has been manager of professional product sales.

In his new position, Mr. MacDonough will direct the activities of Anso's amateur, professional, graphic, and x-ray marketing departments.

### Two Advanced by Reeves

James R. Cooper has been named general sales manager of the Vulcan Rubber Products Division of Reeves Bros. Inc., New York. He was product manager for the Vulcan offset and newspaper blankets. Mr. Cooper came to Reeves in 1953 with acquisition of Vulcan Rubber Products, Inc., by

Reeves. He had been with Vulcan since 1945.

Walter A. McEvilly replaces Mr. Cooper as product manager at Reeves headquarters in New York. He joined Reeves Brothers, Inc., in 1956 as a sales representative for Reeves Vulcan offset blankets in Chicago and adjoining areas.

### Cincinnati GAA Elects Five

Recently elected officers of the Graphic Arts Association of Cincinnati are John D. Rockaway, managing director; W. H. Bedinghaus, Jr., Bedinghaus Business Forms Co., president; John J. Klinker, Jr., U. S. Printing & Lithograph Co., vice president; and W. A. Kleesattel, Feicke Printing Co.

**nuArc**

**flip-top**

**PLATE MAKER**

Not only do you save on the initial cost of a flip-top unit . . . the set up cost is substantially reduced: no partitions, curtains, or exhaust systems because the light from its powerful arc lamp is contained within the cabinet. Save on floor space; flip-top units occupy a space only a few inches larger than the actual plate size. Save time—these simple to operate units can be controlled from one position by one operator.

Hundreds of leading photo lithographers and photo engravers know, there is no easier or faster way to make perfect plates.

\*Send for the latest "flip-top" Bulletin A-500 ML

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General Office and Factory: 4110 W. Grand Ave. • Chicago 51, Ill.  
Eastern Sales and Service: 215 Park Ave. So., New York

<b>13 • 18</b>	MODEL FT-18 \$275.00
<b>17 • 24</b>	MODEL FT-24 \$433.00
<b>21 • 26</b>	MODEL FT-26 \$495.00
<b>28 • 32</b>	MODEL FT-32 \$599.00
<b>30 • 40</b>	MODEL FT-40 \$699.00
<b>43 • 52</b>	MODEL FT-52 \$1,095.00
<b>50 • 62</b>	MODEL FT-62 \$1,495.00

### Howard E. Eddy Dies

Howard E. Eddy, 75, retired vice president of sales for Chemco Photo-



Howard E. Eddy

products Co., Glen Cove, N. Y. died late last year after an illness of several years.

Mr. Eddy served as sales manager and, later, vice president for sales for Chemco, from 1930 until his retirement in 1948.

He was born in Connecticut in 1882. Prior to joining Chemco he had served with the firm of Manning, Maxwell & Moore. He was succeeded as Chemco sales manager by Sam B. Anson, Jr.

### Unfair Competition Charged

Foster Publishing Co. and Foster Type and Equipment Co., Philadelphia and their president, Irwin Borowsky were charged, in January, with inducing discriminatory advertising allowances from suppliers, in a complaint issued by the Federal Trade Commission.

Foster Publishing Co. publishes two monthly trade papers for the graphic arts, "Printing Impressions National Edition" and "Delaware Valley Printing Impressions." Foster Type and Equipment Co. sells printing equipment and supplies.

The charges, described in the FTC's News Summary bulletin of January 7, indicate that the companies charged induced allowances from suppliers which were not made available to other customers who were in competition with Foster Type and Equipment Co.

The suppliers, Lanston Industries, Inc., Philadelphia, Wetter Numbering

Machine Co., Brooklyn, and Anchor Chemical Co., Brooklyn, are charged with making these special payments for advertising in "Printing Impressions," and with failing to make similar payments available, on proportionally equal terms to all customers in competition with Foster Type and Equipment Co.

The three suppliers, the bulletin reports, paid the allowances during the period July 1, 1958 to June 30, 1959. The amounts cited were: Anchor—\$2,800; Wetter—\$1,500 and Lanston—\$6,500.

An additional charge against the Foster concern is that they misrepresented the circulation of "Printing Impressions National Edition" to be greater than it actually was.

The respondents were granted 30 days in which to file replies to the complaints.

### Bridgeport Advances Two

Two officers of Bridgeport Engraver's Supply Co., Inc., a subsidiary of the Bridgeport Brass Co., were promoted to higher posts at a recent meeting of the board of directors.

William S. Brazier, formerly a vice president, was elected executive vice president, a newly created post, and John M. Ray, formerly assistant treasurer, has been named treasurer replacing Warren J. Faust, who will continue on the board. Mr. Faust is vice president and treasurer of the Bridgeport Brass Co.

### Champion Elects Two

Maynard D. Conklin and Spurgeon Barndt have been elected vice presidents of Champion Paper Specialties Inc., Piqua, O.

The company was formed last year as a subsidiary of The Champion Paper and Fibre Co., Hamilton, O., to make cut-size business papers, marketed as Trim-pak papers, and gift wrap.

Mr. Conklin, who will continue his duties as treasurer of The Champion Paper and Fibre Co., joined Champion in 1949 as a tax consultant.

Mr. Barndt joined Champion in 1958, and last year was named product sales manager of box wrap and gift wrap for the new subsidiary.

### Ed Council Officers Elected

Richard Small, Western Printing and Lithographing Co. has been elected



Richard Small

president of the Graphic Arts Educational Council for 1960.

Other officers for 1960 are: Harold D. Ross, Kable Printing Co., vice president; Alan S. Holliday, Craftsmen, Inc., vice president; Ralph D. Cole, Consolidated Lithograph Co., vice president; George S. Dively, Harris-Intertype Corp., vice president; James W. Coultrap, Miehle-Goss-Dexter, Inc., vice president and treasurer and Byron G. Culver, secretary.

### Merrick Advances Johnson

Herbert H. Johnson, general superintendent of the Merrick Lithograph Co., Cleveland, has been named a vice president of the company.

Mr. Johnson, a veteran of 37 years in the graphic arts industry, is one of the original members of the Litho Club of Cleveland, and acted as its president in 1949. Also in 1949, he was elected treasurer of the National Association of Litho Clubs and also served as second and first vice president.

### Western Advances Ward

Western Lithograph Co., Los Angeles, has announced the appointment of Clint Ward to vice president of the northern division encompassing the bay area in California, Seattle, Portland and Salt Lake City.

Mr. Ward began his career as a trainee at Western in 1948 as a salesman. He later became sales manager of the bay area.

### Litho Conference Planned

NAPL and Printing Industries of Philadelphia are planning a day long conference on lithography, March 18, at the Benjamin Franklin Hotel, Philadelphia.

The program, as announced in January by the NAPL, includes four topics: "Specifications, Estimates and Quotations," George G. Carnegie, Consolidated Lithographing Co.; "Quality Standards in Lithography," J. Tom Morgan Jr., Litho-Krome Co.; "Setting Up and Analyzing Management Procedures," Stanley R. Rinehart, Printing Division, DuPont Co. and "Selecting and Training Lithographic Salesmen."

Registration fee is \$6.00 before March 1 and \$7.00 thereafter. The conference is open to printers, lithographers and suppliers.

Copies of the program will be ready shortly and can be secured from either Noel Rippey, executive secretary, Printing Industries of Philadelphia, Inc., 1900 Cherry Street, Philadelphia 2, or Walter E. Soderstrom, executive vice-president, NAPL, 317 West 45th Street, New York 36.

### May Buys Baumgartner

R. E. May Inc., Cleveland trade platemakers, has purchased the plate-making department of H. K. Baumgartner, Inc., also of Cleveland. The combined facilities will be operated at 1011 Power Ave.

Paul A. Meunier is president and owner of the company and Allan Martin is production manager.

### GA Press Advances Kay

Graphic Arts Press—Washington Planograph Co., Washington, D.C., has announced the appointment of Allan H. Kay as production manager.

A graduate of Rochester Institute of Technology, Mr. Kay has been associated with Graphic Arts Press—Washington Planograph Co. for the past year.

### Connolly Joins S & H

Clement J. Connolly has joined the sales force of Sleight and Hellmuth Ink Co., New York. He will work out of the company's New York office and

will cover the metropolitan area, according to a company report.

Mr. Connolly had previously been employed at the Sigmund Ullman Divi-

Clement J.  
Connolly



sion of General Printing Ink Corp.

### Rolcor Appointed Dealer

Rolcor Products, Inc., New York, has been appointed a national distributor for Vitene ink and spray film remover and glaze preventative; Blanket fix, a solution to repair low spots in rubber blankets; baseline system of masking sheets and Miehle 17 Lithoprint and 1250W Multilith two-sided sheet cleaners.

Further information is available from the company at 133 Prince St., New York.

150 LINE SCREEN      FOUR-COLOR PROCESS

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POSITIVES

#### NOTE THESE FEATURES:

- Now used by some of America's finest color printers.
- Screened positives or negatives in 7 working days.
- Progressive color proofs (one week extra required) and color mat proofs available at following extra charges:

SIZE	COLOR PROOFS	COLOR MAT PROOFS
4" x 5"	\$20.00	\$ 5.00
5" x 7"	20.00	5.50
6" x 9"	25.00	6.00
8" x 10"	30.00	7.00
11" x 14"	40.00	8.00
12" x 18"	65.00	9.00
13" x 16"	65.00	9.00
16" x 20"	105.00	14.00

- Our experience includes the making of over 100,000 sets of positives.
- Letterpress negatives also available. Send for special price list.
- Free information on pressroom procedures including inks, press and plates.

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COLOR PRINTS

YOU CAN USE COLOR  
ABUNDANTLY AT  
THESE LOW PRICES...

4" x 5" or smaller \$35.00

5" x 7"	\$40.00	11" x 14"	\$55.00
6" x 9"	\$45.00	12" x 18"	\$90.00
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16" x 20"	\$150.00		

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Best reproductions  
are made from 4" x 5"  
Ektachrome transparencies

Extra charge for 8" x 10"  
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Plant  
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Wagner  
Equipment



In metal decorating plants all over this country, Wagner equipment is producing the kind of music most enjoyed by metal decorators; the sound of turning out the work in a continuous stream.

If your machines are not "humming along", call upon Wagner Engineering to look over your production lines. There's no obligation.

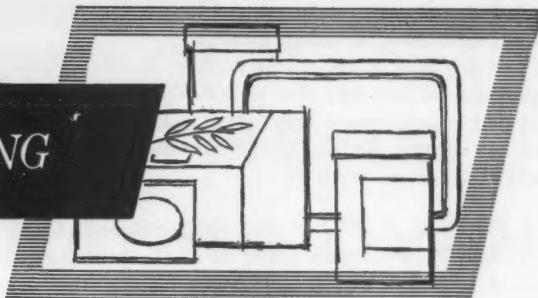
WAGNER LITHO MACHINERY

Metal Decorating Machinery

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## METAL DECORATING



Recent developments in

# Coil-Fed Coating Processes

## Part 3 (Conclusion)

By *Allen S. Dawe*

J. O. Ross Engineering Div.,  
Midland-Ross Corp., New York

**I**N a line going at 100 f.p.m., five ft. wide, coated both sides, one mil thick with a 70 percent paint, there is, as is obvious, 1,000 sq. ft. of painted surface. This equals two gallons of paint a minute or 1.4 gallons of solvent a minute, equal to 84 gallons of solvent an hour. In order to be at the safe explosive limits to satisfy Factory Mutual standards of 10,000 c.f.m. per minute exhaust, fan requirements would necessitate exhaust equipment at baking temperature of approximately 30,000 cu. ft. a minute. A metal decorative oven 100 feet long handling 100 36 x 43" sheets a minute, equivalent to 300 feet a minute in lineal speed, would release about 72 gallons of solvent an hour. Equating this to 100 feet a minute, the release would be 24 gallons an hour, as compared to 84 in strip line.

Contrary to metal decorative baking, in which it is necessary to hit the sheet immediately with high heating of 430°, the strip coating baking curves as dictated by the characteristics of the solvents, must be lower in temperature at the start. A typical curve on a 100 ft. long oven would be 250°F., 450°F., 650°F. and 550°F. at the quarter points.

The heat loads on heavier gauge lines are quite large. At 100 f.p.m. with a five foot strip, 500 sq. ft. a minute or 30,000 sq. ft. an hour is processed. If this is 16 gauge, the heat load is 75,000 lbs. of metal. In order to keep the thermal head down, a very large quantity of circulated air is introduced. For instance, a typical design might be 80,000 c.f.m. circulated in four zones. If this were an aluminum baking job, the BTU input would run about 14,000,000 BTU/hr. and 30,000,000 BTU/hr. for steel.

With a strip passing through such an oven plenty of room should be provided for the unsupported catenary of 130 ft. from the coater head to a supporting roll. Exact air flow is not as critical as in a lithograph oven

where the air must be brought up between sheets 1 1/4" apart.

A satisfactory air circulating method consists of supply headers at the top and bottom of the oven with air blowing down and up. Recirculation above the top header or circulation sideways into chambers built on the outside of the enclosure is proper. In designs now operating there is from three to six feet of vertical space allowed between the headers for the catenary sag. As was pointed out previously, the ultimate tensions that would tear the strip or stretch the edges must not be exceeded. The depth of catenary will vary with the gauge of the metal and is governed by this.

Because of the large solvent volumes in strip coating ovens they are always good prospects for catalytic heat recovery systems or fume incineration control features. The most economical fuel, of course, is natural gas, although we have designed electric ovens where the rate was low enough for practical purposes.

Reference should be made here to high speed baking methods that can be used to cut down the catenary span or increase strip speed. Flame curing by application of direct jets of narrow gas flames, has been proved in laboratory tests but will not work on solvents which "brown off".

Infra-red gas or electric heat have also been laboratory tested with baking times of about ten seconds. However, with the high solvents present, fires or scorching of the film with resultant unsafe operating conditions often result.

J. O. Ross has a high velocity air oven operating at 650°F. or more being tested in our laboratory, which is giving excellent results, and which seems to solve the fire hazard problem. However, it is not yet worked out on a practical basis to overcome the catenary sag problems.

Induction heating can be used on vinyls, plastisols and organosols having no solvent content.

The problems of the catenary; removal of solvents; application of heat very close to both sides of the strip; applying a wet film on both sides; and the control of baking, all must be solved before practical five-second baking can be accomplished.

#### Water Quench Unit

In closing, let me touch briefly on the cooling features needed in a line. After baking in each of the ovens in the line, it is necessary to cool the painted strip quickly to avoid the use of excessive amounts of space or for immediate control over the contact, with the next supporting roll in the process.

#### Aluminum for Juice Cans

Crown Cork & Seal Co., Philadelphia, recently received what is probably the largest order ever placed for lithographed aluminum cans. The order, said to be in excess of 100 million cans, is now in production at Crown's Orlando, Fla., plant.

The order is a major breakthrough by aluminum into the canned foods business. The order was placed with Crown by Libby, McNeill & Libby, who have switched from "tin" to aluminum cans for frozen orange juice.

Crown displayed some of the new cans at its lithographic exhibition at the National Canners Convention in Miami last month.

Libby, McNeill & Libby stated it liked the rust-proof and light weight of the aluminum cans.

Some beer and sardines have been packed in aluminum cans, but Libby says it is the first food packer to make large-scale use of the metal.

Crown had previously made and decorated aluminum cans for motor oil.

#### Reynolds Forms New Unit

Reynolds Metals Company will centralize its packaging research in a new packaging research division, with A. Irving Totten, Jr., as general director, the company announced last month.

Reynolds greatly broadened activities in aluminum packaging, incorporating ever-increasing appropriations for development of cans, foil containers, flexible packaging, foil

The stabilizing roll at the oven exit should revolve in a water pan and have city water nozzles spraying water on the underside of the sheet just before it passes over. This prevents pick-off and provides first cooling so that the additional water put on the top and bottom of the sheet in the following chamber can complete the cooling in a matter of seconds.

To prevent water marking and disturbances of the newly coated surface, water should not be impinged in high velocity streams. After the strip passes through these water cooling sprays, a set of squeeze rolls similar to those used in the metal preparation machine, are installed. It has also been found practical to install a knife-edge blow-off beyond the set of squeeze rolls in order to guarantee absolute dryness.★

folding cartons, beverage kegs and carrying cases and packaging machinery systems, has made this division necessary," William G. Reynolds, executive vice president, stated.

The new division is made up of three principal departments—material research, with W. P. Andrews as director; sales development, with J. M. Fultz as director; and product development, with W. E. Cheeley as director. G. A. Rutledge was named manager of product engineering, to

coordinate activities of packaging sales engineers in Reynolds sales offices throughout the country.

#### Miller Appoints Maus

Henry Maus, Jr. has been appointed sales representative in a portion of Chicago and surrounding territory for Miller Printing Machinery Co., Pittsburgh, Pa. His headquarters will be at the company's branch office at 400 W. Madison St., Chicago.

#### New Design for Du Pont

A newly-designed container, lithographed by American Can Co., has added sales punch to the "Shield" automotive products of the Du Pont Company. This is one of a series of containers being re-designed in the entire "No. 7" line. "Shield" is a new product, used for protecting new car finishes. Containers for older prod-

ucts in the line will also be re-designed, according to the Du Pont company.

Extensive research, which revealed the container colors and shapes most readily associated by consumers with different types of automotive specialties, guided the development of the new design, created by Mel Richman Design Associates, Inc., Philadelphia.

Newly designed, decorated container for Du Pont No. "7" products



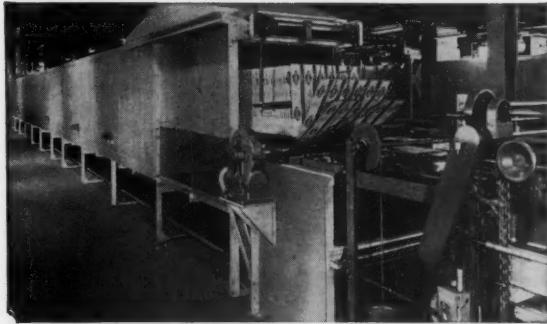
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High speed, combination D. E. F. and D. I. F. Metal Decorating Oven

A metal decorating oven is a highly mechanized production unit in a specialized field — and it will only perform at maximum efficiency in your plant if it has been engineered and built by men well versed in every phase of oven engineering.

In Young Brothers Metal Decorating Ovens you get the experienced engineering and precision operation which are vital in producing high speed, high quality metal decorating. Young Brothers "know-how", based on 60 years of building individually

designed ovens for all baking and drying processes, combined with a thorough knowledge of the Metal Decorating Industry is your assurance of better finished products at lower cost.

A wide variety of basic sizes and types of Young Brothers Metal Decorating Ovens are available to meet your specific requirements. Investigate what their advantages can mean to you — details are available without obligation. Write today!

**YOUNG BROTHERS COMPANY**

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## J. O. Ross Engineering Division Opens New Office



New Ross Office

J. O. Ross Engineering Division, Midland-Ross Corp., recently opened a new office building in Mt. Prospect, Illinois.

Ross manufactures metal decorating ovens and designs and fabricates equipment for controlled atmospheres in other kinds of processing plants.

You asked for it; Here it is.....

## FLAT VARNISH



### for the Metal Decorating Industry!



It's a baking varnish, smooth and highly resistant to scratching and smudging. You'll find it meets ALL of YOUR other requirements, too. Briefly, it's what the metal roller coating industry has been looking for . . . for 30 years.

*Field-tested to PROVE all of these features found in no other product.*

- Flatness in any range from 0 to 75
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May we have a representative call and tell you more about this revolutionary, new product which is the result of extensive investigation and research in our Research and Development labs. Call or write.

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LILLY VARNISH OF MASSACHUSETTS, GARDNER, MASS.  
THE LILLY COMPANY, HIGH POINT, N. CAROLINA  
PRODUCTOS AUROLIN, S. A., MEXICO CITY

## Ross Advances Schmidt

Midland-Ross recently named C. J. Schmidt, executive vice president of the J. O. Ross Engineering Division, as a vice president of the corporation.

Mr. Schmidt has been executive vice president of the Ross Division since 1956.

## Varn Names California Ink

Varn Products Co., Flushing, N. Y. has named California Ink Co., San Francisco, as a distributor of its products for the western States, Hawaii and Canada.

## RIT Expects Large Group

Rochester Institute of Technology reports that it expects a large enrollment for the 10th annual program of Quality Control for the Graphic Industries to be held at the Institute in Rochester, N. Y., June 6-10.

The seminar, originated by Donald Macaulay, president of Paper and Printing Quality Control Inc., Chappaqua, N. Y., was transferred to the RIT campus from New York University two years ago.

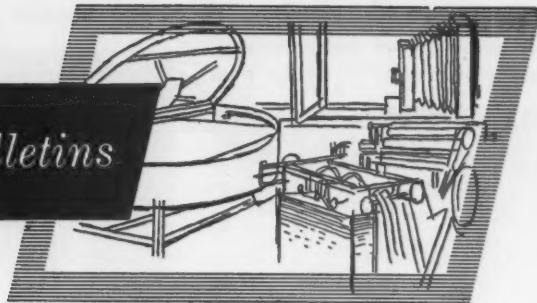
The program, according to RIT, is designed to meet the needs of personnel in graphic arts, whether buyers or producers, for a more common understanding of methods for creating more realistic specifications. Statistical quality control charts, sampling techniques and other quality control principles which have been proved practicable for printing, packaging, and other graphic arts uses are to be discussed. Theoretical developments are integrated with case histories, to help develop, during the seminar, the necessary understanding of quality control.

Quality control instruments, such as densitometers, colorimeters, and pH meters will be demonstrated by qualified personnel from the RIT faculty.

The program is designed to give both producers and buyers of graphic arts materials an opportunity to examine ways of ensuring a more uniform product, more precisely measured, at a lower cost level.

Further information is available from Harold M. Kentner, Extended Services, Rochester Institute of Technology, Rochester 8, N. Y.

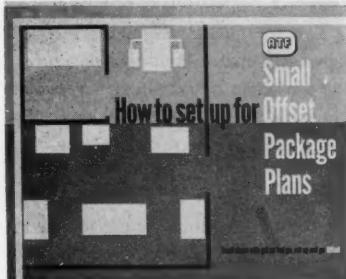
## Equipment, Supplies, Bulletins



### ATF Offers Offset Package Plan

AMERICAN Type Founders Co. has introduced an offset "Package Plan" designed for printers who

from the company at 200 Elmora Ave., Elizabeth, N. J., or any of its local branches.



ATF "Package Plan" Booklet

wish to get started in the field. The plan is designed for two types of operations.

"Package Plan A," as presented by ATF, is designed for complete independent offset operation. It includes all basic equipment necessary for offset printing, from copy to finished product. Complete specifications on alternate models of offset presses, process cameras, developing sinks, platemakers and layout tables are given in detail.

"Package Plan B" is the growth plan. It includes platemaking, but eliminates darkroom, camera and developing sink. Negatives are prepared by outside sources. Designed for plants which are limited by space or other factors, Plan B specifies equipment which will still be of use when the installer "grows up with offset" and expands with additional equipment.

Complete details on both plans, together with floor layouts, specifications, and illustrations of recommended equipment are included in a new booklet "How to Set Up for Offset — Package Plans," available

### Dupont Publishes Handbook

Dupont Photo Products Department has published a two-volume, loose leaf bound, "Graphic Arts Handbook." The book, which contains the latest information on photographic materials, processes and techniques, will be available through dealers in the United States early this year.

Priced at \$6.50 for the two volumes, the book condenses, into a single source, technical data on Du Pont's graphic arts films, including "Cronar" polyester photographic film base and other products. It also contains information on such subjects as color separation and masking, halftone and line procedures, and photographic film opaquing.

Purchasers of the book will also receive pages containing new and supplemental material that will be issued, at no extra cost, as new products are introduced and new techniques developed by Du Pont.

### Westvaco Issues Catalogue

A new catalogue containing a complete line of Westvaco quality printing papers, has been issued by West Virginia Pulp and Paper Co., New York.

It features hard covers, liberal use of four-color plates, and products separated according to printing processes and index tabs for easy reference.

Each subject in the catalogue was specifically selected to demonstrate capabilities of the sheet on which it

was printed. Four-color work, solids and black and white reproduction, by the three printing processes — letterpress, lithography and gravure — are all used so that the buyer can see for himself the performance of each grade.

### K-C Offers Type Booklet

"Type and its Relation to Paper," an educational booklet in its "better printing through better planning" series, has been published by Kimberly-Clark Corp., Neenah, Wis.

Written by R. Hunter Middleton, typographer and calligrapher, the booklet discusses type selection, type arrangement and printing surfaces. How this process can be simplified — to make the client's advertising materials easier to read — is the theme of the booklet.

In the illustrated booklet, Middleton lists three requirements for good printing: 1. A well-designed type, tastefully arranged or composed; 2. properly inked printing forms, clearly impressed on the paper; and, 3. paper selected to fit all the requirements, both esthetic and technical, for the printing process being used and the printed effect desired.

The booklet is available from the company or its distributors.

### Acrolite Presents Catalog

Acrolite Products has made available its 1960 graphic arts, color catalog which describes all products and services offered by the company. A complete new line of acrylic-lacquer spray enamels in both six and 16 oz. containers has been added to the company's line.

The catalog is available from the company at Box 469, Rahway, N. J.



# NEW SUBSCRIPTION ORDER

## MODERN LITHOGRAPHY

2 years \$7.00       1 year \$4.00

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OTHER COUNTRIES: \$9 [ ] 1 year      \$15 [ ] 2 years

### My Classification:

1. Lithographing plants and employees, including private plants, combination lithographic and letterpress plants, metal decorators, lithographic trade platemakers including employees.  
 Subscription in company name  
 Owner, managing officer  
 Superintendent, foreman, etc.  
 Other employee (please specify)
2. Letterpress printing plant including employee (if you also do lithography check under No. 1 above).  
 Manufacturer, jobber, dealer in lithographic equipment or supplies including employee.
3. Library, college, school, trade association, instructor, student.  
 4. Other (please specify).

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## DEEP ETCH CHEMICALS

Leading litho plants have been standardizing on Schultz Chemicals for over a decade.



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### about B-M HALFTONE TINTS

The only complete line available in six tone values in all screens through 133 line . . . Film and non-strip glass—uniform—fast—convenient.

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A really new screen—Etched on a single glass sheet permitting faster exposures, and color reproduction to full camera capacity. Attractively bound and available in matched sets at a price savings.

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Foreign Rates (see page 5)

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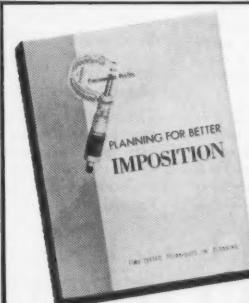
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## Lithographer — New Delhi

Now serving as foreman of process department in New Delhi, India, desires to secure position as trainee in American lithographic company. Hard worker, wages unimportant.

If you are interested in helping build freedom-loving India, write Jag Mohan Kapur, 10 Pusa Road, New Delhi, India.



### PLANNING FOR BETTER IMPOSITION

Written by printers for printers, PLANNING FOR BETTER IMPOSITION is packed with planning tips, operating procedures, hints and tricks taken from years of experience in commercial printing.

Designed as a manual for all concerned with planning printing at any stage, the book also breaks down the complex science of imposition into clear, concise terms readily understandable to the printing "layman."

144 profusely illustrated pages—incl. 96 pages of imposition layouts. Price: \$10.00.

Modern Lithography  
Book Dept., Box 31, Caldwell, N. J.

# PRACTIMATION



***A new word, which means more than automation, for it is the custom-fitted application of today's finest automation equipment to your particular needs...***

This announcement is a culmination of Friden's years in integrated data processing. Friden's assumption of responsibility for the most important phase of automation—its practical application.

The first step to PractiMation is a critical analysis of your office. Second, an outline of objectives for increasing its efficiency (without personnel changes). Then, consult your Friden man. He is an expert, and has solved a good many problems like yours. His help can be invaluable.

Next, you need equipment that can be used by your present employees without special training; equipment which is sanely priced, easy to install. And, above all, equipment which is expandable with your business.

**Here are some good examples:**

**A.** Friden SBT Calculator—the famous "Thinking Machine of American Business." Touch-one-key simplicity. Performs more steps in figure-work without operator decisions than any other calculating machine ever developed.

**B.** Friden COMPUTYPER® (Model CTS)—writes and figures a complete invoice in one operation with virtually no operator intervention. Reads alphabetical or numerical data from punched tape, edge-punched cards or tabulating cards; data not pre-punched is

entered through the typewriter keyboard. The Computypewriter CTS and any good typist make up an entire billing department.

**C.** Friden JUSTOWRITER®—makes any typist a skilled type compositor. Automatically provides professional-looking composition for offset reproduction.

*These are just three. Friden's full line of adding machines, calculators, accounting machines, mail room equipment, and "Tape Talk" IDP equipment can fully automate your office. Call your Friden man today, or write directly to Friden, Inc.*

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meet with much enthusiasm at Hartford or Oshkosh.

In his message, Mr. Fowler cited the increased expenses of the organization, primarily mailing costs, and asserted that "even with the doubling of the per capita tax we still will not avoid operating at a deficit, unless we find other means to raise funds on a year to year basis." Furthermore, according to the NALC president, much of the materials and services are now provided free to the association. He said the association has no right to continue to expect free services from member plants.

W. Stuart Grau, chairman of the permanent secretary and permanent headquarters committee, reported on the need for a permanent executive secretary for the NALC. In a questionnaire to the 32 member litho clubs, which 22 answered, he said the proposal to "hire an individual to act as permanent secretary, conducting routine business as directed by the elected officers of NALC," was favored over proposals to use a multiple office organization which would serve NALC and other groups, a permanent secretary with executive powers, or a tie-in with another graphic arts organization.

The report went on to outline 19 duties that might be assigned to an executive secretary. As "with anything new," the report concluded, "a number of things will have to be worked out through experience and practice. After the first year of operation, duties, responsibilities and methods of operation may have to be changed slightly or tailored to fit the needs of the member clubs and the NALC."

Among those taking part in the phone conference were: *Hartford*—Peter Rice, Silvio D'Amato, Russell Johnson, Rae Goss, James Fraggos and Stephen Rubenstein; *Oshkosh*—John Murphy, J. Leonard Starkey, Mr. Grau, and Walter Conway; *Tulsa*—Mr. Fowler and Dugald McIntyre.

Reports from all officers of NALC were read at each of the three meetings. Committee appointments were also announced. Club coordinator W. O. Morgan predicted that the San Antonio, Ann Arbor, Clinton, Ia., and Little Rock clubs would seek membership in NALC in 1960.★

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## MARK-UP

(Continued from Page 51)

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lower rate of profit on an order, then the salesman's commission must also be at a lower rate.

You will note in this mark-up formula that as the company profit is reduced by lower mark-up, the sales commission is reduced to a greater extent than the company profit. That's the way this mark-up policy was planned—it provides a monetary incentive to cause the salesmen to have an interest in profits.

This mark-up policy is based on paying salesmen on a drawing account commission basis.

You should include in your all-inclusive costs all other items of sales expense, such as sales management, sales secretaries, cost of rent for space used by sales department, advertising expense—all sales costs except the direct sales commission paid to salesmen must be included in your all-inclusive costs.

Remember—you are in business to make a profit. To make a profit *know your costs and mark up your costs* to earn a decent profit on your sales.

These mark-up percentages should be used in marking up your own all-inclusive costs, but your all-inclusive costs should not include the actual commission paid to salesmen. The commission paid to salesmen varies, and does not belong in your all-inclusive costs.

*Sales commissions must have a relation to the profit the company will realize. If the company takes a lower rate of profit on an order, then the sales commission must also be at a lower rate.*

### Commission Depends on Mark-Up

In this suggested formula you'll note that as the company profit is reduced, the sales commission is reduced

to a greater extent than the company profit. It gives you a good sharp needle to jab in your salesman—a monetary incentive to make him do his best to sell at a fair price that will make him and the company a fair compensation.

This mark-up pricing formula is based on paying salesmen on a drawing account commission basis. Salesmen pay *all* their own expenses. To my way of thinking, this is the fairest, best way to compensate salesmen. I know some lithographers won't agree with me but I believe in it, and if I went to work for you tomorrow as a salesman, it is the method I would ask for as my compensation for selling your product and services.

All of the sales costs—the sales management, sales secretaries, cost of rent for space used by sales department, advertising expense—all sales costs except the direct sales commission paid to salesmen, are in the all-inclusive costs.

Using this mark-up policy will bring you other benefits besides a profit. You will stop the bickering about how to price your product and services. You give the formula to your sales manager and tell him that's it—he and the salesmen agree as to the mark-up to apply on any individual job.

They can use any one of the percentages they think best for the individual job, but the salesman knows in advance that if he asks for the 5 percent mark-up, he gets a commission of only two percent; and if he is not numb and dumb, he will learn fast to use the 25 percent mark-up so he will make a 10 percent commission and earn a decent compensation for himself as well as a fair profit for the company.

If you agree with me that the only reason you are in business is to make a profit, then I hope you will know your own costs and apply to your costs a mark-up that will give you a fair profit from your business.★

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### Durst Opens N. Y. Offices

Durst Inc., subsidiary of Durst SPA Bolzano, Italy, manufacturer of photographic enlargers, celebrated the opening of its new offices and showrooms at 1140 Broadway, New York, with a Italian "Festa" party.

A working darkroom has been installed in the showroom to demonstrate the company's equipment under working conditions.

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### PRINTING WEEK

(Continued from Page 53)

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day exhibit of printing and lithography at Stix, Baer & Fuller, downtown department store during Printing Week. The exhibit was open to the public two evenings, in addition to regular store hours.

American Can Co. was host to

printers and guests Jan. 19 for a plant tour as part of the local observance.

Joseph Sestric, director of public safety in St. Louis, was dinner speaker at the PW banquet, Coronado Hotel, Jan. 20. Miss Candy Gruebel, Comfort Printing Co., was selected as Miss Printing Week.

Robert Van Eekhout of O'Fallon Technical High, and Willie Earvin of Hadley Technical School were winners of the Junior Craftsmen award for best records in initiative, cooperation and attendance in printing classes.

### Dayton

A demonstration of offset and letterpress printing techniques was part of a special program at the Patterson Cooperative HS during Printing Week. A display of printed and lithographed specimens from local shops

was on view in the school dining room, where the annual steak dinner was held on Jan. 21.

On the same evening, PIA of Dayton made awards to outstanding high school students. James D. Moore, of James D. Moore Organization, Chicago gave the main address. He was followed by a new sound and color movie entitled "Photoengraving Means Business."

The Litho Club was one of 13 city organizations sponsoring the program.

### Detroit

Miss Frances Moore, of Campbell-Ewald Co. was chosen Miss Printing Week in this city. Winner of the 1960 scholarship was David C. Kwiatkowski, Cass High School senior.

Members of the PW committee ap-

peared on a special panel show on the "Search-light" television show.

On Thursday Mayor Louis B. Mirani cut the tape at the Masonic Temple, opening to the public the most comprehensive Printing Week graphic arts exposition ever shown in Detroit. The exhibits and displays dominated the lower floor of the Masonic Temple.

On Thursday evening seven of the 15 sponsoring organizations held a dinner. Attending were the Amalgamated Lithographers of America, Academy of Advertising Arts, Club of Printing House Craftsmen, the Graphic Arts Guild, the Litho Club, Printing Education in the Detroit Public Schools, and the Scarab Club. Speaker was Joseph W. Straayer, advance progress staff engineer at Chrysler Corp. Missile Division, who spoke on "Advance into Space."

On Friday the Adcrafter luncheon was held at the Masonic Temple, with the Women's Advertising Club of Detroit as guests. Joe Leigh, of Einson-Freeman Co., Inc., Long Island City, N. Y., offered "Twenty Ideas in Twenty Minutes."

On Saturday, a dinner-dance was held in the Chrystal Ballroom at the Temple.

## TECHNICAL BRIEFS

(Continued from Page 69)

### Lithography—General

PEOPLE ARE MORE IMPORTANT THAN MACHINES. Otis E. Wells. *Modern Lithography* 26, No. 7, July 1958, pp. 39, 108, 109 (3 pages). Author points up import-



ance of personnel selection in living, the advancement of the person in a plant and the amount of pay he receives during his total time of employment in relationship to the profitable operation of the plant. Upgrading of the general IQ of plant personnel to apply intelligently the technical advancements to come from LTF was stressed.

WEB-OFFSET PRESSES HAVE MANY ADVANTAGES. Olin E. Freedman. *The Inland Printer* 141, No. 6, September 1958, pp. 53-56, 142 (5 pages). In approaching the subject of web-offset the article dwells on the considerations that would be of the greatest importance to top management. The various advantages or the helpful features of the web-offset press are grouped under various headings.

KEEP A CHECK ON YOUR WEB-OFFSET PRODUCTION. Reginald F. Wardley. *The Graphic Arts Monthly* 30, No. 9, September 1958, pp. 66, 68, 70, 72, 74, 76 (6 pages). How to use graphs and forms to reduce spoilage, makeready and down-time and maintain quality. Illustrations.

GOOD MAINTENANCE IN PRESSROOM HELPS REDUCE COST. Charles W. Latham. *The Inland and American Printer and Lithographer* 142, No. 2, November 1958, pp. 64, 65, 66 (3 pages). Starting with preventive maintenance, the author describes a pressroom maintenance plan which means a saving of time and money in the pressroom. Five steps suggested for supervision of maintenance are:

1. Study the needs.
2. Form a plan with the help of persons involved.
3. Set up a workable system.
4. Sell it to those who must make it work.
5. Follow-through by management.

\*A DISCUSSION OF MODERN AUTOMATIC STEP-AND-REPEAT MACHINES. F. G. Wallis. *Litho-Print*, Vol. 1, No. 12, Dec. 1958, pp. 23-5, 3 pages. From *Printing Abstracts*, Vol. 14, No. 2, Feb. 1959, Abs. 541. The Bouzard-Calmels step-and-repeat machine, in which all the movements can be controlled electronically from punched cards which are fed into a computer attached to the machine, will accommodate all plates up to 22 x 54" and master negatives up to 20 x 24". A full description is given of the machine, with illustrations. Details are also given of the HP Auto Step and Repeat Machine and the Multinex (Misomax, Stockhold; Agent: J. F. Crosfield).

\*NO VACUUM FRAME. Anon. *Litho-Print*, Vol. 1, No. 12, Dec. 1958, p. 4. From *Printing Abstracts*, Vol. 14, No. 2, Feb. 1959, Abs. 601. Agfa has introduced a preparation to hold film flat in a process camera without the need for a vacuum frame. A semi-adhesive varnish, marketed under the name of 'Repro-Haftlack', is coated on a flat glass or metal plate, which then serves as the backing plate in the camera. The varnish layer remains tacky after application and the film is simply placed on the varnish surface and squeegeed down. After exposure the sensitive material is peeled off and processed in the usual way. The varnished plate can be used many times over. It can be cleaned by carbon tetrachloride, and when the tackiness begins to fall off it is a simple matter to apply a new layer.

\*THE IDEAL LENS STOP. L. A. Mannheim. *Litho-Print*, Vol. 1, No. 12, Dec. 1958, pp.

finest quality  
**color**  
**PLATES** for offset lithography  
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32, 35, 2 pages. From *Printing Abstracts*, Vol. 14, No. 2, Feb. 1959, Abs. 608. The reduction of lens aberration and diffraction, the production of optimum definition and deliberate resolution loss are discussed.

\***GRIPPERS: WHAT GOVERNS EFFICIENCY?** A. S. Porter. *Litho-Print.*, Vol. 2, No. 3, Mar. 1959, pp. 13, 15, 17. From *Printing Abstracts*, Vol. 14, No. 6, June 1959, Abstract No. 2088. The different types of grippers and their efficiency and maintenance are discussed.

\***DRY OFFSET PRINTING IS USED FOR CANS.** Anon. *Food Field Rept.*, Vol. 27, No. 8, 13 Apr. 1959, p. 45. From *Printing Abstracts*, Vol. 14, No. 6, June 1959, Abstract No. 2228. This method, used by the National Can Corp., is said to print richer colors than the usual wet lithography process. It is said to apply up to 40 per cent more pigment and saves the cost of an additional pass through the machines.

\***FITTING AND MAINTAINING OFF-SET BLANKETS.** G. E. Webb. *Litho-Print.*, Vol. 2, No. 4, Apr. 1959, pp. 19, 21-3, 25-7, 30. From *Printing Abstracts*, Vol. 14, No. 6, June 1959, Abstract No. 2034. Hints are given on the fitting of the blanket, packing the cylinder, blanket washing, resting and storage of the blanket and running the press so as to reduce damage to the blanket. Under normal conditions with modern blankets dusting with flowers of sulphur is unnecessary.

#### Graphic Arts—General

**RECOMMENDED LIGHTING PRACTICE FOR COLOR APPRAISAL OF REFLECTION TYPE MATERIALS.** Philip E. Tobias. *The American Pressman* 68, No. 4, April 1958, pp. 38, 39, 40 (3 pages). R & E Council of Graphic Arts established standard light source to view reflection copy. The Macbeth Daylighting Company in Newburgh, N. Y. builds a unit for viewing under recommended color temp light.

**AUTOMATION IN THE GRAPHIC ARTS.** D. Ward Pease. *The Graphic Arts Monthly* 30, No. 10, October 1958, pp. 6, 8, 10, 12, 14 (5 pages). In the graphic arts, automation has been going on since Gutenberg's movable type. But accelerated recent developments make it necessary for printers to re-examine their operations—even the small plant can benefit.

\***FERROMAGNETIC PRINTING PRESS IN DEVELOPMENT.** Anon. *Editor & Publisher*, Vol. 92, No. 2, Jan. 10, 1959, p. 46. A quotation from Tass, the Soviet news agency, reports that Lithuanian physicists have developed a typeless ferromagnetic printing machine which transmits whole images in seconds to ordinary paper.

**CLARIFICATION OF THE FOOD ADDITIVES AMENDMENT AND THE GOVERNMENT'S VIEW OF TINTED PACKAGES.** Arthur A. Cecchi. *Flexography*, Vol. 4, No. 3, Mar. 1959, pp. 17-8, 59, 60, 62, 5 pages. *Gravure*, Vol. 5, No. 3, Mar. 1959, pp. 30, 32, 80, 82-3, 5 pages. "Additives" includes indirect as well as direct, hence packaging ingredients are

included. Three radical changes involved are: 1. Provides a method whereby formal approval for use of an additive under specified conditions can be secured. 2. Requires that new additives be proved safe before their use may be permitted. 3. Provides a system whereby safe tolerances for substances that may be harmful in larger quantities may be established. These points are expanded in the article. A case involving tinted transparent packaging which deceived customers on fruit and vegetables is described.

\***OUTLOOK FOR XEROGRAPHY.** A. Matheson. *Print in Brit.*, Vol. 6, No. 12, Apr. 1959, pp. 738-42. From *Printing Abstracts*, Vol. 14, No. 6, June 1959, Abstract No. 2191. A detailed account of the xerographic process is given, with particular reference to xero-lithography, line and tone reproduction, equipment available, cost, special applications (such as printed circuits and letterpress plates), color reproduction for lithography, automatic production (the Copyflow printing machine), computer output printing (the Xeronic output printer) and direct xerography.

**CURRENT SITUATION IN PRINTABILITY RESEARCH AT RESEARCH INSTITUTE OF THE GOVERNMENT PRINTING BUREAU.** Ieyasu Ichikawa. *Asian Printer*, Vol. 2, No. 2, 2nd Quarter, 1959, pp. 22-6, 5 pages. In English. Currently research in printability in Japan is divided among ink and paper manufacturers; and basic research centered in the Government Printing Bureau. A printing quality tester was developed by the Bureau and this is being used in work on how ink composition and printing smoothness affect ink transfer. Results of work on these problems are presented in a series of graphs and formulae. Work is considered to be in a preliminary stage.

\***MIXING INKS TO MATCH A COLOR PATTERN.** E. A. Apps. *Paper & Print.*, Vol. 32, No. 1, Spring 1959, pp. 54-5. From *Printing Abstracts*, Vol. 14, No. 6, June 1959, Abstract No. 1933. The importance of careful color matching is stressed and the procedure to be followed described.★

#### COLOR

(Continued from Page 33)

the participants pointed out that for printing, painting and sheet gelatin production a light and dark limit is established by selecting samples from the run. These light and dark limits are excellent when the raw materials when combined in the proper amounts produce the desired result. If, however, the color of ink during printing changes, then these light and dark limit samples are no longer useful.

Munsell is now preparing limit samples in Munsell chips. These limit

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samples are mounted on a board with circles cut out between the specified color and the limits. By placing these circles over the production run, it is possible to determine whether or not the production has exceeded the specified limit. These chips can be provided to very close tolerance.

It was pointed out during the discussion that the vendor-buyer relationship deals with shipments rather than single pieces. During the production the vendor should collect accurate color information. The buyer, on the other hand, must use quality control methods, particularly lot sampling, in order to determine something about the entire shipment rather than the single or small number of pieces provided by the vendor.

*(Because of the success of the color seminar, RIT is planning to offer another one this year.)★*

## SAFETY

(Continued from Page 36)

and try to have them provided for use during construction, not after the last door is hung.

### Planning New Plant

As the new plant takes shape, begin to set up all the items you should have had in your old place:

1. Institute a system of regular, detailed, inspections. One to be done by the plant personnel, another to be periodically done by you. Send written recommendations and perform a follow up inspection to assure some thought and action being put to them.
2. Write a set of minimum standards covering all the basic hazards; general housekeeping, waste disposal, flammable liquid handling, smoking, welding and so on.
3. Write detailed specifications and descriptions on maintenance, testing and care of fire equipment.
4. Make sure the responsibility for all these items is clearly defined. This item is extremely

important and is often neglected, or unclear when it is done.

5. Set up within your own company a procedure whereby you are notified of intended changes, additions and new construction, so that you will at least be aware of new hazards being introduced.
6. Begin a thorough and continuing program that will provide your company with an organization to fight your failures, and give them the training they will need to do this job. A good training program is time consuming and hard work, but it is the only way you can keep alive an awareness of the seriousness of a future fire. If any one item in fire comes first, it is the fact, that your people must know and understand the possible consequences of a fire.

Don't solve your fire problems with a statement like this: "The sprinkler system is our first and foremost defense against fire." In too many places it is the *only* defense and this can be dangerous over a period of time. Something else must be first.

Your first defense against fire, and your last hope in the event of one, is a well-trained *man*, backed up by a well-prepared *program*.★

## FARM EDITORS

(Continued from Page 48)

of pictures at a much lower cost."

*Diamond Walnut News*, published by Diamond Walnut Growers, Stockton, Cal., is a bi-monthly of 24 pages, 8 1/2 x 11", with a circulation of 15,000. It was started in 1917, which ranks it among the oldest co-op publications. About a year ago a switch was made to offset at Atwood Printing Co., Stockton. Asked about the advantages of offset, O. L. Braucher, the editor, said the reduction in printing time and the lower cost for the plates, were the most important factors.

"Offset also makes it unnecessary," said Mr. Braucher, "for our advertisers to go to the expense of

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## Do you know . . .

1. What hourly costs are for lithographic operations?
2. What is a fair mark-up on paper, film, ink, plates, and outside purchases in so far as you, your salesmen, and your customers are concerned?
3. Do you have your own lithographic production standards?
4. When you work unscheduled overtime, how can you recover this cost from customers?
5. What is a fair way to compensate lithographic salesmen?
6. Where you can see forms used to schedule work through many well-managed lithographic plants?
7. What has been the experience of other lithographers with various kinds of pre-sensitized plates, new equipment and supplies coming on to the market?
8. What is the best kind of self-advertising for a lithographer?
9. Where you can secure building and floor plans for lithographic plants recently built?
10. Where can you secure an outline of the job duties of all officers, superintendents, foremen, and key personnel in a lithographic plant?
11. Where can you get case histories on Trade Custom disputes dealing over ownership of negatives and plates, etc.?
12. When the economics of a lithographic plant justify adding additional presses, photo composing, and graining equipment, etc.?
13. What the Fotosetter, the Photon, masking in the camera, etc., will mean in the future?
14. How you can secure Budgeted Hourly Rates for your plant?

These are vitally important questions, every one of which deals with the management of your business both today and tomorrow. You, no doubt, have many more questions on your plant operations on which you would like to have prompt and sound answers.

The NAPL constantly receives requests for every kind of information from its large and growing membership in the United States and other countries. The NAPL has answered all of the above questions and many more. If you are a lithographer, a printer, a firm who sells the industry, or even if you have no equipment, you can have complete information of every phase of lithographic management by joining in our aggressive trade association work. We offer a great deal for very little.

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	Presses larger than 22" x 28" up to and including 35" x 45" .....	\$37.00 per press per year
	Presses larger than 35" x 45" .....	\$47.00 per press per year
	MINIMUM DUES, \$50.00 per year. Maximum Dues, \$450.00 per year.	
	ASSOCIATE MEMBERS — Equipment and Supply Dealers, \$125 per year.....	Total Annual Dues

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Signed ..... Phone .....

making plates, since they can send us a good piece of art work which is simply photographed in the print shop."

Among the 47 co-op publications classed in the government report as "newspapers" is the *Triangle*, published at Lakeland, Fla. by Florida Citrus Mutual. This is a 4-page weekly, 14 x 10", with a circulation of 9,500. It was started in 1950 as an offset job.

*The Miami Valley Dairyman* is a 16-page monthly, started in 1928 by the Miami Valley Milk Producers Association, Dayton, O. A switch to offset was made about two years ago, after the editor, Doris Copenhefer, had one issue printed in a litho shop to determine reader reaction. Approval of the "new look" was overwhelming and members like the fact that printing costs have been reduced. Use of color, improved legibility of type and the clear, sharp pictures, have also contributed to strengthening the farmer members' appreciation of their own magazine, she reported.★

## MASKING

(Continued from Page 65)

words, the white, magenta, red and yellow patches should be equally bright.

This method of checking is quite accurate except for the red filter. The red filter makes the magenta and red patches appear slightly darker (relative to white) than they photograph and allowance should be made for this.

A densitometer can also be used on the ground glass to check these corrections. However, the measurements may not be accurate if the patches are not close to the center of the ground glass. Usually they are alongside the copy and the lens angle prevents a good pickup of light by the photocell.★

## PHOTO CLINIC

(Continued from Page 58)

formulated with special physical and chemical properties required for such applications as packaging, food

wraps, decorative foils, checks and security papers, and the like. But, surprisingly, such a wide variety as exists today was not available to the craftsman of the previous generation.

Unfortunately, progress brings with it new problems. A lifetime of experience gained in an era when inks were formulated from simple and limited ingredients no longer is adequate to cope with the materials currently in use. The driers, extenders and other modifying agents that experience proved were satisfactory with inks of even a decade ago are not necessarily effective with modern inks. Thus, the technician of today must have a more thorough knowledge of ink technology than his predecessor. And so does the craftsman. One way to keep abreast of technological progress is by reading authoritative up-to-date books. In the case of printing inks, a comprehensive and modern treatment of the subject is the volume authored by E. A. Apps.

### All Processes

This all-embracing volume not only covers lithography, but all major processes. In addition, it discusses inks for a wide variety of applications — paper, metal, foils, plastics, etc. Of greatest importance is the detailed treatment given the subject throughout the 32 interesting chapters. Among the topics covered are the nature of printing inks and printing processes; ink ingredients — their purpose and characteristics (this includes natural and synthetic vehicles, driers, extenders, colorants and various additives); ink testing and testing equipment; color matching and colorimetry; roller and blanket technology; rheology of inks; ink drying systems; manufacture of inks; special purpose inks. Numerous illustrations and full-color plates plus handy time-saving tables and equations supplement the text. A glossary of printing terms, patent index and an up-to-date bibliography provide additional value to the book.

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paper, ink, film and supplies used  
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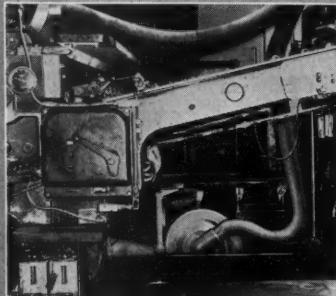
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## TALE ENDS

EVERYONE is watching San Francisco, this month, as the ALA strike drags on and on, delayed in part by the lengthy court proceedings in connection with the ruling against "hot cargo" clauses. Union officials are privately—and publicly—incensed about what they feel is an injustice against ALA. They see no reason why the government should push a test case of the new Landrum-Griffin amendment against a union with such a fine reputation as the Amalgamated. Management, of course, takes the position that if "hot cargo" clauses are illegal, they should be eliminated, no matter what the industry.

Whether or not ALA's attorneys will fight the "hot cargo" battle "to the highest court, if necessary" as they declare they will, remains to be seen. Meanwhile, there are quite a few other disputed points in the San Francisco contract which may take quite a while to thrash out. At press-time it looked as though the strike would go on into February.

*An NLRB trial examiner recently had to decide a ticklish problem: whether eight employees of a printing firm had been fired because they joined a union or because they engaged in such activities as slapping female employees on the rear "and so forth and so on."*

*He chose the former, explaining, in his decision, that the "so forth and so on" (not further explained) had been going on for some time, without anybody being disciplined. The firings came only after the employees, who worked in the composing room, had joined a union. Hence, he ruled, there was an unfair labor practice.*

*The perspicacious NLRB man handled the whole thing quite adroitly, we think. He concluded his decision with the carefully worded observa-*

*tion that "the employer is not naive: I believe he was both aware of and reconciled to the basic fact that contiguous employment of both male and female in offices and plants has inevitably led to a relaxation of formal barriers and to a tolerance of casual badinage and conduct not free from overtones of sex."*

**MORALE:** *He who pinches needn't be canned.*

One of the continuing worries of commercial lithographers is the loss of business to "captive plants," those operated by companies that feel they can handle their printing needs right in their own plants with a small offset

press or two. The editor of the British publication *The Lithographer and Offset Printer*, writing on the subject recently, observed that this trend may not be all bad.

"The more widespread use of lithographic printing in presses maintained outside the orthodox trade," he commented, "should certainly lead to a greater demand for lithographic services for orthodox printers."

It's all very well to hope that private firms, having seen at first hand the advantages of the lithographic process, will call upon their local offset shop for more of the same. But wouldn't it be less risky to install the necessary small offset equipment in the commercial shop to handle those "nuisance" jobs which so often come up and thus obviate the need for the captive plant ever getting started?

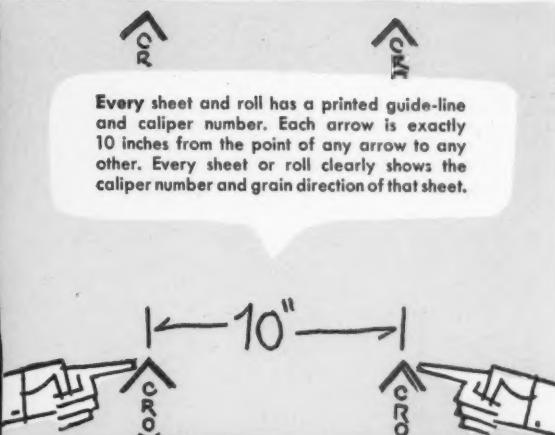
Seems to us a private plant, once started, is something like a new tax . . . it tends to get larger, not smaller, as time goes by.★



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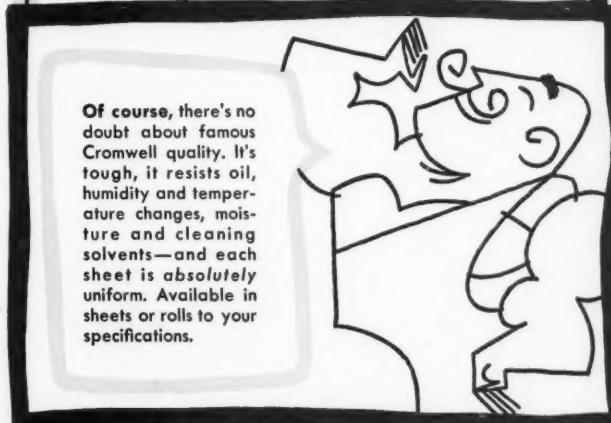
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